

Middle East and Africa

Telecommunications industry at cliff's edge

Time for bold decisions

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Preface – about this report

The large and growing telecommunications market in the Middle East and Africa is facing a turning point. In the last ten-year period, the market has enjoyed penetration growth and profitability far above global averages. Its leaders are among the world's largest telecommunications operators and while the region represents 8 percent of the global telecommunications market, it contributes nearly 20 percent of the economic profit pool. With a rapidly expanding population including fast-growing youthful and urbanizing segments, the region as a whole supports a mobile broadband subscriber base of well over 1 billion. Propelled by the popularity of social media in the Middle East especially, smartphone penetration is growing as well, and is expected to reach 50 percent before long.

When the ten-year growth period is broken into segments on either side of the financial crisis, however, divergent financial performance emerges. In the pre-crisis period of 2004 to 2007, total return to shareholders averaged 14 percent annually; in the post-crisis period of 2009 to 2014, average total annual returns dropped to 9 percent. McKinsey's Telecommunications practice in the region undertook this research paper to track the causes of the narrowing financial picture.

We sought to map the competitive terrain, discover market trends, and plot possible future movements. Along the way, we identified three telecommunications market archetypes within this diverse region – developing, polarized, and mature. The polarized markets are those countries comprising two clearly distinct segments, one developing and one mature.

The region's competing providers have long operated on a model of creating value by expanding the subscriber base. This model, while remaining relevant in the developing segments and markets, has mainly run its course in the mature markets. Our analysis reveals an industry at a crossroads. At the current path, revenues in the region will stagnate and margins will erode. The industry's assets will be liable to commoditization by capital markets.

On the other hand, the telecommunications environment in the region's mature markets and segments is burgeoning with potential opportunities for operators able to transform their revenue models. The growth engine of the future industry is a digital ecosystem propelling the growth in demand for data services as well as financial and commercial offers. Innovative customer relationships at the command of e-consumers will open new possibilities to increase the value of these relationships. Capturing growth will be no small matter, however. The regional market will likely have to undergo consolidation, given the steep investment required to pursue the new value-creation model. Aspirants will have to undertake a digital transformation to reduce costs and build the digital ecosystem. New revenue streams will have to be opened and new high-tech businesses explored. The topics we discuss in this paper—advanced analytics, Internet-driven over the top (OTT) content, digitization, consolidation, and new operating models—will define the competitive terrain of the future. Operators with suitable market position can take advantage of these trends to surmount the barriers to growth. On the other side lies the greatest generation of telecommunications growth in the region.

Executive summary

The telecommunications sector in the Middle East and Africa (MEA) is in the midst of a decade of strong growth and investment, driven by a technology explosion and strong demographics. The region now claims 8 percent of global telecommunications revenues and 19 percent of economic profit. For the six-year period ending in 2015, the region averaged around 3.5 percent growth annually, far outstripping the global average of 0.3 percent. Well over half of this growth (53 percent) has been attained in low-income mobile-only countries, mostly through increased penetration.

The next chapter of telecommunications will be defined by exploding data demand. A huge potential will be captured by operators who, by making smart investments in the core business of connectivity, will become intelligent network operators. This will require a much more segmented and targeted approach as economics of data are much tougher than those of legacy voice business. While there is no one story for every player, there are at least 5 levers which CEOs should evaluate when crafting competitive advantage for the next decade. Varying flavors of advanced analytics, video and “over the top” content, consolidation, new operating models and digitization will separate winners from troubled assets. Those late making choices or short of financing investments will soon find themselves unable to compete.

Market profiles and growth barriers

In establishing the future priorities, each telecommunications market in the MEA region can be situated in one of three archetypes: growth, polarized, and mature. These are defined according to GDP per capita, mobile and fixed penetration, and smartphone presence. Analysis reveals dramatic differences between these groups, in terms of macroeconomic context, urbanization, stage of market development, and importantly, competitive dynamics and future growth opportunities. Growth markets are the low-income countries of Africa, presenting the greatest remaining opportunity for increased penetration. Mature markets are the high-income countries of the Middle East. Polarized markets include the wealthier economies of Africa and are divided between a more affluent metropolitan population and a lower-income rural population. The former acts much like a mature market and the latter as a growth market.

Operators in growth markets can look forward to revenue pools increasing by ca. 50 percent in the next five years. The increasing scale may stabilize profitability at EBITDA range of ca. 40 percent. For operators in the mature markets, there are no easy wins left. Their cash-flows will be under pressure of stagnating top-line and increasing investments.

Equity markets are showing less enthusiasm lately for telecommunications assets in MEA. The region has seen less growth and narrower margins, a decline insufficiently offset by slightly higher dividend payouts. Overall total returns to shareholders have decreased 60 percent in the last four years. The downtrend is consistent with the decline in telecommunications valuation multiples, as companies in the sector have been converging gradually to levels of utility asset classes. Regaining capital market trust will require reinventing operational models through the smart use of technology, adapted to an era of digital data.

Five levers to strengthen the core business

The future of telecommunications is data-centric, and digital-savvy consumers will dominate the next decade of growth. New digital value pools are being defined in the mature markets and the penetrated (mature) segment of the polarized markets. New horizons are being opened by spectrum, Wi-Fi offloading, backhaul optimization, alternative vendor models, infrastructure sharing, and scientific procurement.

To prepare for the next generation of MEA telecommunications growth, operators will need to make investments in their core business sufficient to maximize revenue and optimize the cost base of their core business. They will furthermore need to make longer-term investment plans to build, buy, or share the infrastructure needed to deliver services through a fiber-optic network. The cost of not making such investments will likely be existential.

While there is no one story for every player, there are five levers which will divide winners from the rest and which CEOs should therefore evaluate to build competitive advantage:

- **Advanced analytics.** Future success depends on operators' ability to exploit the advantages of big data. By applying advanced analytics to the data they continually collect, telecommunications companies can better predict customer behavior. After many years of being little more than a buzz word, advanced analytics is fulfilling its promise, with its three requirements in place: plenty of data, inexpensive computing power, and algorithms capable of handling incomplete and unstructured data sets. Applying it to value management and capital expenditures, operators can dramatically improve their accuracy in predicting churn and accordingly reduce capital expenditures by as much as 30 percent.
- **Video and “over the top” (OTT) content.** Over the last three years, the top global telecommunications companies have announced or launched hundreds of media development projects, making media the most active area for expansion. Today, MEA generates the least revenue from video consumption with USD 5 to 6 per capita (versus, for example, BRIC average of USD 30). This is only partly due to low income—even in the more affluent countries of the region, video penetration is still low. To capture the rising opportunity in digital video delivery, regional telecommunications operators may be better positioned than global providers.
- **Consolidation.** Consolidation has been historically important for improving in-market industry structure and conduct, and gaining scale to boost returns and promote investment in essential ICT infrastructure. In the data era, access to spectrum in attractive frequency blocks and cost advantage (e.g., asset sharing) will play a fundamental role in sustaining returns required for investment. The pace and nature of consolidation will depend on regulatory conditions, industry structure and shareholder imperatives.

- **New operating models.** MEA operators need to realize 30 percent cost savings to stay competitive and meet the demanding economics of the data age. To develop sustainable cost efficiency, companies will have to transform their operating models. We have identified three types of operating models that can help to realize cost savings of 25 to 35 percent: the value-focused local model, the cross-border scale model, and the partnership web model.
- **Digitization.** Once the master of customer value management and satisfaction, the telecommunications industry now needs to catch up and introduce a digitized business model. There are two fundamental objectives: to meet high levels of customer-service satisfaction in the data age and significantly reduce operating expenditures.

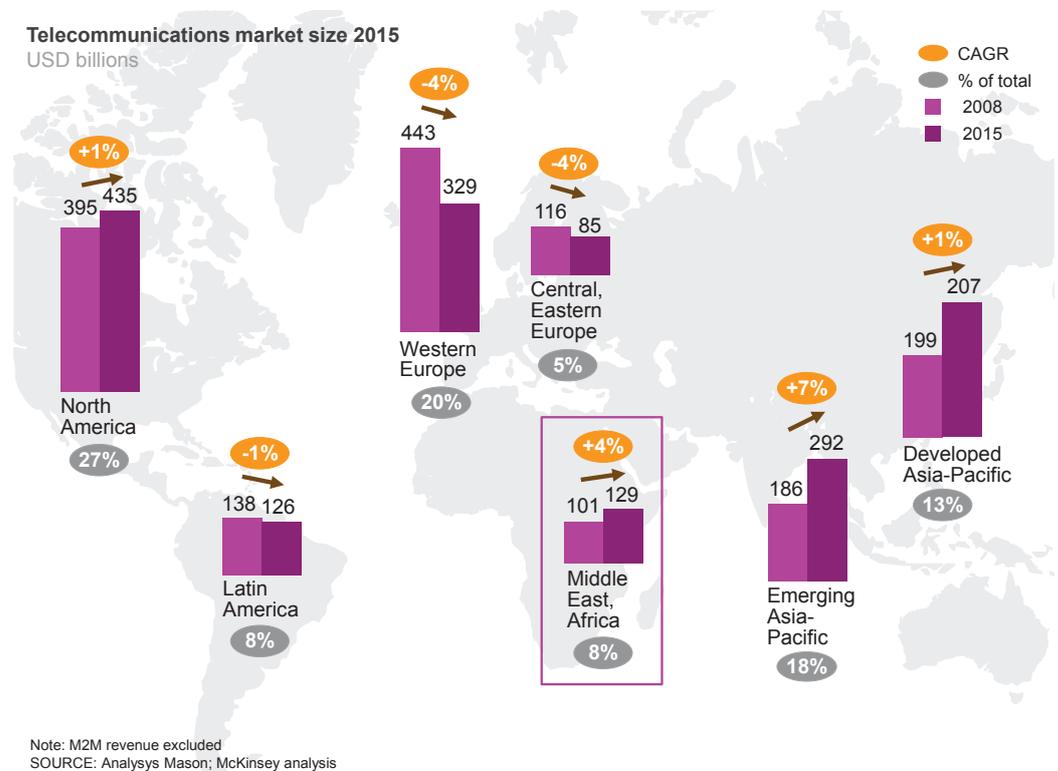
Each of these levers will be described in detail in this paper. Yet, they are not exhaustive and we intend to discuss further ways of telecommunications value creation in the next edition. By choosing the levers above, we wanted to stress that getting connectivity right is at the core of telecommunications industry challenge.

1. More people, calls, and bytes

The telecommunications sector in MEA as a region is in the midst of a decade of strong growth and investment.¹ The region now claims 8 percent of global telecommunications revenues with an average annual growth rate exceeded only by Emerging Asia-Pacific and China (Exhibit 1). For the seven-year period ending in 2015, the region averaged around 4 percent growth annually, far outstripping the global average of 0.3 percent. Well over half of this growth (57 percent) has been attained in low-income mobile-only countries, mostly through increased penetration.

Exhibit 1

The MEA region represents 8% of the global telecommunications market and has the second-highest growth rate of any region



Telecommunications profitability in the region has also been impressive. Led by incumbent companies, margins exceeded the global average by 11 percentage points in 2014, with particularly higher gains in the MEA regions. A substantial portion of the revenue growth comes from expanded capital expenditures, reflecting increased coverage in sub-Saharan Africa and network upgrading in the Middle East-North Africa. The market is also being shaped by favorable trends in demographics, data connectivity, and device penetration and subscriber growth (Exhibit 2).

¹ The region defined in this paper as Middle East-Africa (MEA) includes all the countries on the African continent plus Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, the UAE, Yemen, Cyprus and Turkey.

Key trends shaping the telecommunications market in MEA

	 Demographics	 Data connectivity	 Growth in penetration
Middle East 	<p>World's highest population growth: 44% from 1990-2008 vs. 34% in India, 17% in China, 27% worldwide</p> <p>Facebook users in Arab world rose by 33% from May 2013-14, vs. 34% globally</p> <p>59% of Internet users watch videos online; Saudi Arabia has world's highest rate of YouTube subscribers</p>	<p>Smartphone penetration will grow from 23% in 2014 to 58% in 2020 (35 pp) vs. 33-63% globally (30 pp)</p> <p>All major operators within the Gulf Cooperation Council have launched LTE</p> <p>High mobile broadband usage driven by better mobile coverage than fixed</p>	<p>Mobile penetration rose 10% annually from 2008-13</p> <p>278 million mobile subscriptions in the Middle East in 2013, a y-o-y increase of 5.2%</p> <p>More than 2 Internet-enabled devices per user in some countries vs. 1.27 globally by 2013</p>
Africa 	<p>Africa is the most youthful continent, with a large population of 15- to 25-year olds (age segment that uses technology the most)</p> <p>High urban growth rate of 3.6% – double the world average</p> <p>50% of African cities will drive 40% of overall growth</p>	<p>More than 50% of urban population is online, primarily through mobile</p> <p>54% y-o-y growth in mobile broadband subscriptions in Q4 2013, compared to global average of around 17.5%</p> <p>Increasing LTE network activity with 24 commercial LTE licenses launched by the end of 2014</p>	<p>Around 25 million subscribers added in Q4 2013 (3.12% of subscriber base vs. 0.37% globally)</p> <p>Mobile penetration increased by 11% annually from 2008-13</p> <p>By 2013, Africa had more than 800 million mobile subscriptions; base is steadily growing: 12% of worldwide connections now vs. 8% in 2010</p>

SOURCE: WCIS; Analysys Mason; World Bank; United Nations Habitat

Solid demographics underlie technology explosion

The region leads the world in population growth: since 1990, the population of Africa has grown by 63 percent, while the population of the Middle East expanded by about half.² Technology use has correspondingly exploded. Africa's youthful and increasingly urban population moved online, primarily through mobile channels. Mobile broadband subscriptions in Africa grew by over half in 2013, around triple the global expansion rate. The number of subscriptions reportedly reached 900 million in early 2015.³

In the Middle East, social media has proliferated, with especially dramatic growth in Facebook and YouTube use. Smartphone penetration has also been growing: at 23 percent in 2013, it is expected to cross the 50 percent threshold in a few years' time. Mobile broadband coverage is high, a reflection of a subscription base of nearly 280 million. In both the Middle East and Africa, LTE network coverage is expanding: all major telecommunications operators in the countries of the Gulf Cooperation Council (GCC) have launched LTE networks, and 24 commercial LTE licenses were active in Africa by the end of 2014.

² United Nations, Department of Economic and Social Affairs, Population Division (2013).

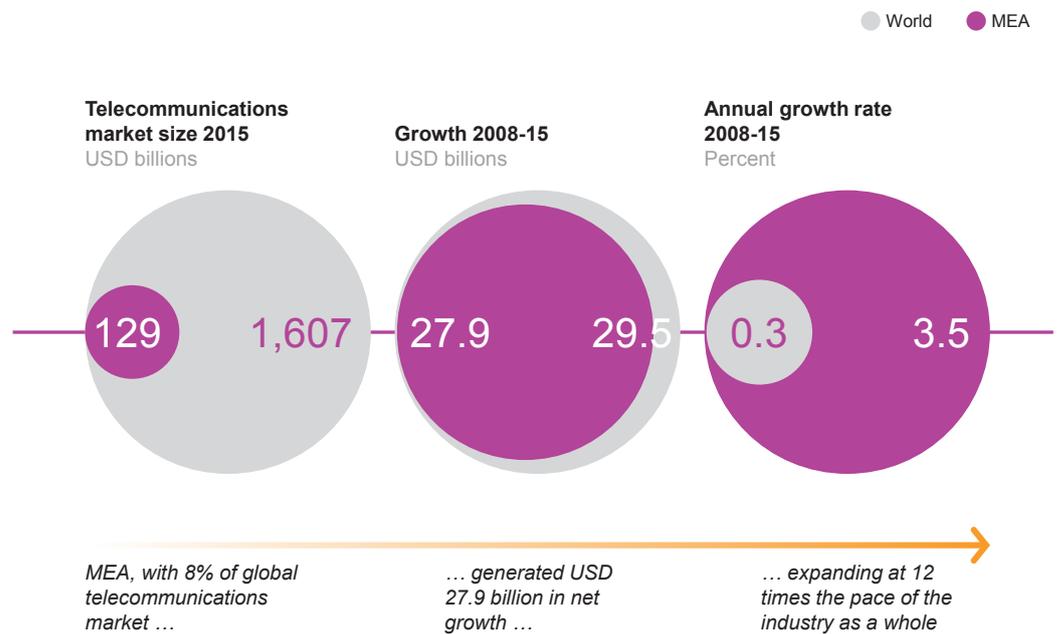
³ Ericsson Mobility Report quoted in BizTech Africa, June 2015.

Strong and largely mobile-driven growth

Worldwide, the telecommunications market saw net growth of only USD 29.5 billion between 2008 and 2015; with the European markets shrinking significantly, the MEA markets grew in size by USD 27.9 billion overall during this period. With Emerging Asia-Pacific, the MEA markets have thus been the growth engine for the entire sector. The region has grown 3.5 percent annually compared to flat markets globally (Exhibit 3).

Exhibit 3

MEA telecommunications market has expanded by USD 27.9 billion in 2008–15 period, growing at 3.5% annually



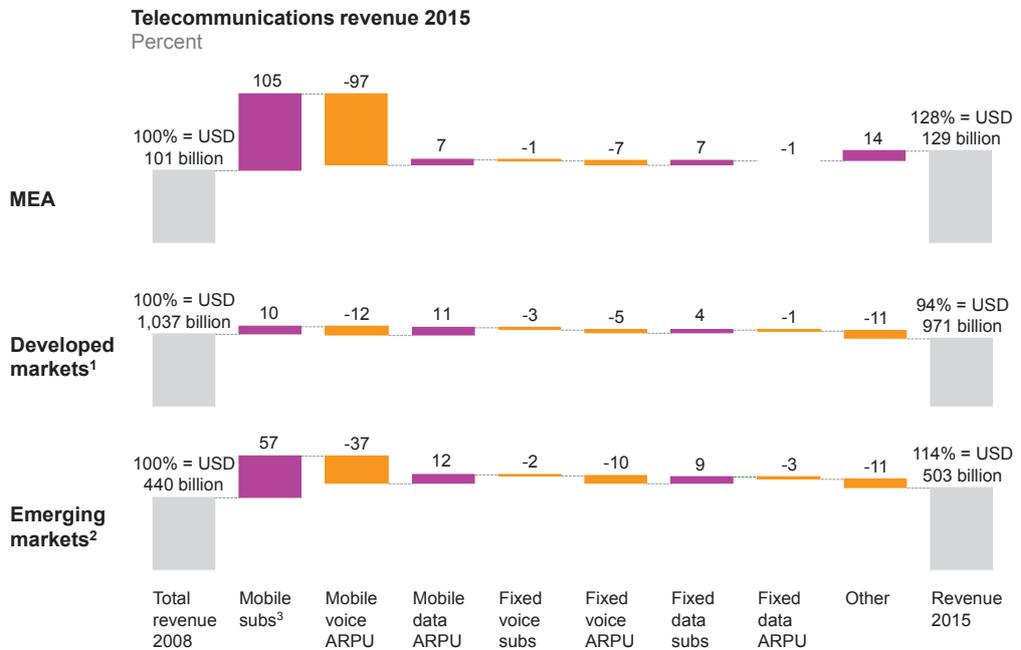
Note: M2M revenue excluded
 SOURCE: Analysys Mason; McKinsey analysis

A closer look at the region's growth reveals that nearly 70 percent of it has taken place in countries with low penetration rates. The remaining 30 percent of the growth has been contributed by the region's mature and saturated markets.

Most of the revenue growth is the result of extensive new penetration, especially in sub-Saharan Africa. The burgeoning subscriber base as well as an increase in data service revenue in the Middle East and North Africa have been more than enough to offset sharp declines in average revenue per user (ARPU) in voice service. These declines were significant globally, but they were steepest by far in the MEA region: per-user revenue was down by 97 percent, a measure of the explosive subscriber growth (Exhibit 4) as well as a reflection of price-based competition, which led to price wars in many markets. These affected not only voice, but also data services. As a result, the average rate of data ARPU growth was below that of other regions. Maintaining capital returns to shareholders at high historic levels will be tough if data discounting continues to be at the core of operators' market strategies.

Exhibit 4

Growth in region came mainly from high penetration; gains led to lower prices and a significant fall in per-user revenue in mobile voice



1 North America, Western Europe, and Developed Asia-Pacific
 2 Central and Eastern Europe, Emerging Asia-Pacific, and Latin America
 3 Includes impact of dual SIMs
 SOURCE: Analysys Mason; McKinsey analysis

A highly profitable sector to date

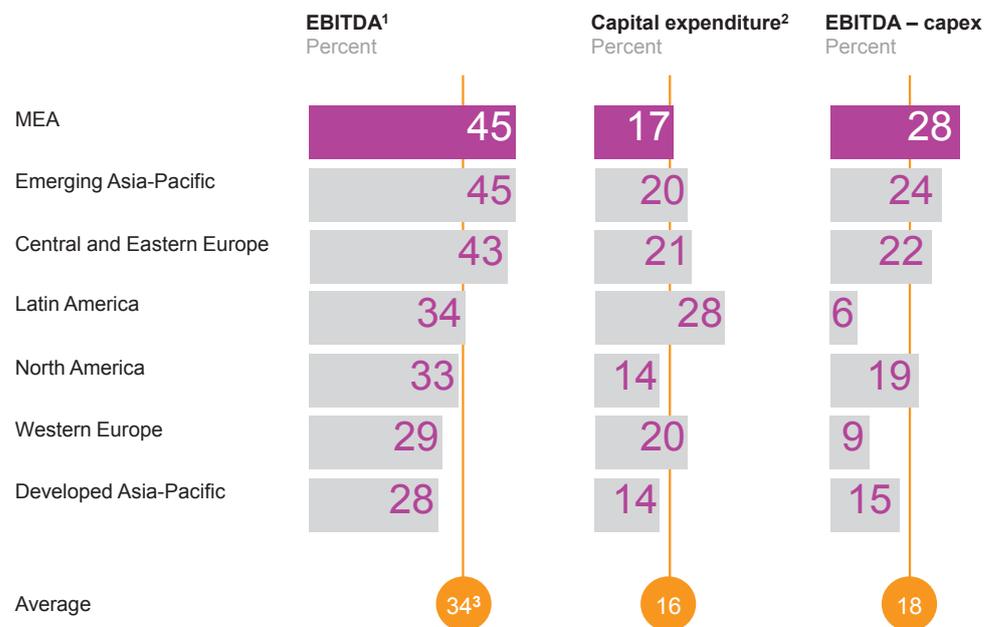
Among industries, after capital expenditures, telecommunications has been very profitable globally. MEA telecommunications, furthermore, has been a sector leader in profitability. In 2014, at the end of a four-year period in which capital-expenditure intensity was 17 percent (above the industry average of 16 percent), margins on earnings⁴ of 45 percent were achieved in the MEA region, well above the global industry average of 34 percent (Exhibit 5). This exceptional profitability was achieved at de facto global average capital expenditure rates, paving the way to exceptional returns.

Among industries, after capital expenditures, telecommunications has been very profitable globally. MEA telecommunications, furthermore, has been a sector leader in profitability.

⁴ Expressed as EBITDA – earnings before interest, taxes, depreciation, and amortization.

Exhibit 5

MEA mobile operators achieved higher “cash margin” thanks to superior profitability, despite higher capital expenditure



1 EBITDA (earnings before interest, taxes, depreciation, and amortization) margins weighted by absolute EBITDA values for 2014. MEA EBITDA margin based on several regional mobile companies

2 Capital expenditure margins weighted by absolute total revenues for 2014

3 Orange lines coincide with weighted world averages

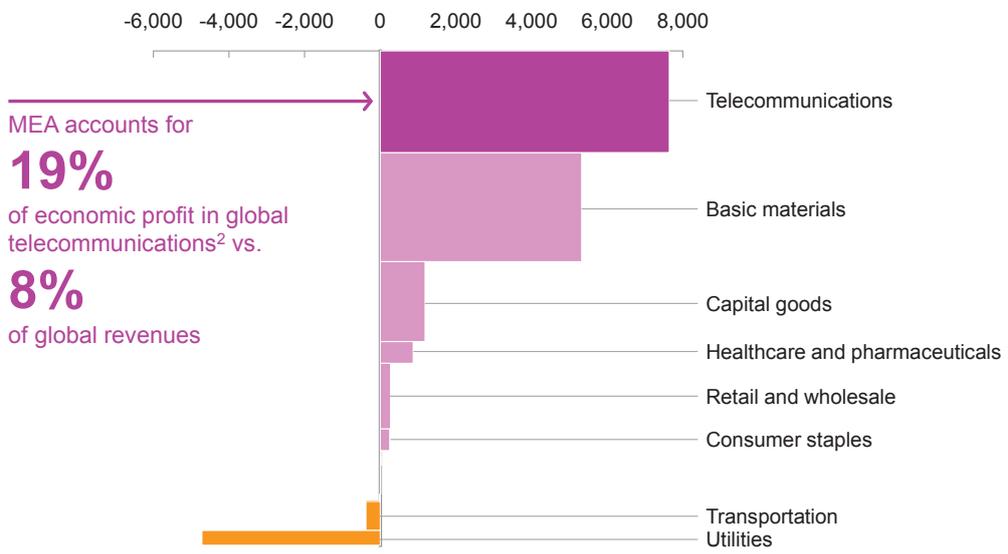
SOURCE: World Cellular Information Service (WCIS); company annual reports

Leading telecommunications operators in the MEA region are among the 2,900 largest companies in the world. Globally they generated only 8 percent of the world's telecommunications revenue in 2015, but in their region they contributed 19 percent of entire economic profit, significantly more than other industries.⁵ This shows the sector's importance not only as provider of vital infrastructure, but also as a backbone of capital returns for investors in the region.

Exhibit 6

Telecommunications is a leading sector for economic profit in the MEA region

Cumulative economic profit for the MEA region in the last 3 years
(excluding energy and financial sector)¹



¹ 78 companies in MEA region based on a sample of global top 2,900 industrial companies
² Other economic profit shares: 63% in Europe, 5% in Asia-Pacific, and 13% in the Americas
 Note: Bar width represents economic profit; bar height represents number of companies in sample
 SOURCE: McKinsey Corporate Performance Analysis Tool

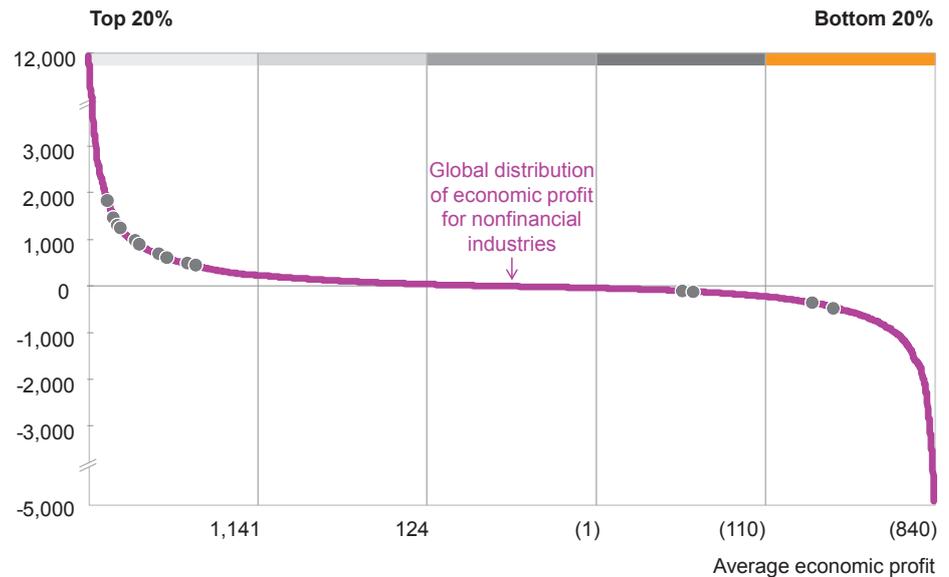
Furthermore, ten MEA telecommunications leaders ranked in the top quintile for telecommunications profitability globally in the 2010 to 2013 period. And unlike most large firms, these companies generated economic profit based more on margins than on growth rate or scale. Dots on the line illustrate individual operators, with the vast majority in the top quintile and very few below the economic profit line. Interestingly, they are either big winners or loss makers, with no companies in the middle, unlike other industries (Exhibit 7).

⁵ Economic profit in simple terms means returns on investments after the cost of capital: return on invested capital minus the weighted average cost of capital (ROIC - WACC) multiplied by investment.

Exhibit 7

Most MEA telecommunications operators are in the top quintile of all companies in terms of economic profit

Economic profit for leading nonfinancial companies in the last 3 years¹
USD millions



1 N = 2,900

SOURCE: McKinsey Strategy Practice and McKinsey Corporate Performance Analysis Tool

In MEA, telecommunications companies regularly address the demand of a highly diverse group of markets. Chapter 2 explores the varied market context, revealing that the requirements for future shareholder value creation change according to the type of market and the size of the operator.



2. Drivers of growth and profit

The MEA telecommunications market is far from homogeneous. It comprises 1.4 billion people living in countries as poor as Niger, with USD 441 GDP per capita, or as wealthy as Qatar, with USD 93,000 GDP per capita. Mobile penetration is as low as 25 percent in Ethiopia and as high as 180 percent in Kuwait.⁶ Likewise, average monthly revenue per user ranges from USD 3 to 30. Regulatory frameworks vary; here tending to limit competition to one or two companies, there fostering fragmentation, with five or more network operators. Price wars are common: in some markets, data was discounted long before it became a mainstream product; in others it has remained at sky-high levels.

The high diversity of the markets addressed is reflected in financial disparities among telecommunications providers. Most companies equal or even exceed the sector's high financial-performance averages. Twenty percent of operators, however, do not reach threshold margins for positive shareholder returns. Though most telecommunications groups and incumbents were strong performers in the past, they will need to unlock ample potential for improvement in pricing, cost, and capital efficiency if they want to maintain such levels in the future. Shareholders may need to set higher performance expectations and consolidation will be necessary to improve industry health.

In order to better understand the structure and dynamics of the wider regional telecommunications industry, the constituent markets have been mapped into three archetypes according to growth stage of the market.

Three diverse market archetypes

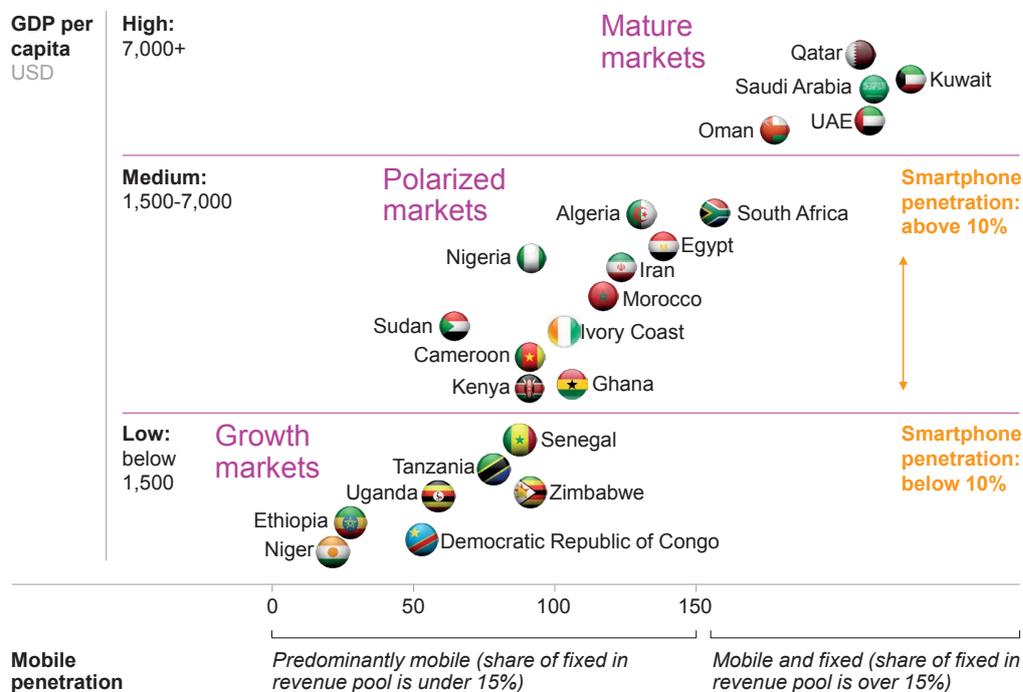
As shown in Exhibit 8, each telecommunications market in MEA has been situated in one of three archetypical groups: growth, polarized, and mature. The groups have been defined according to GDP per capita, mobile and fixed penetration, and smartphone presence. By using these parameters, analysis has revealed dramatic differences between groups in terms of macroeconomic context, urbanization, stage of market development, and importantly, competitive dynamics and future growth opportunities. As any segmentation, this one is meant to directionally help understand specific characteristics and future challenges.

Though most telecommunications groups and incumbents were strong performers in the past, they will need to unlock ample potential for improvement in pricing, cost, and capital efficiency if they want to maintain such levels in the future.

⁶ Including multiple subscriber identity modules (SIMs).

Exhibit 8

Three types of markets are found in the telecommunications sector in MEA, based on country wealth and mobile-fixed penetration



SOURCE: Analysys Mason; Groupe Speciale Mobile Association; World Bank

Growth markets possess the greatest remaining opportunity for increased penetration, though their low per-capita GDP and rurally dispersed populations will pose challenges. To capture the opportunities, cautious investment management will be needed, as margins will have to be maintained against the high capital requirements amid limited purchasing power. There may be additional growth opportunity to provide infrastructure for public services in the areas of healthcare, education, retail, and finance. The outlook in these markets is for 5 to 8 percent annual growth and a slight improvement in the EBITDA margin (up to 10 percent) above the present average of 38 percent assuming they can avoid price wars.

Polarized markets include the wealthier economies of Africa, with per-capita GDP ranging between USD 1,500 and 7,000. These countries have a median urban demographic of 50 percent and mobile penetration around 100 percent. They are distinguished by a polarized consumer base, with wealthier metropolitan and lower-income rural populations. A typical example, where the divergence of the two consumer groups is immediately clear, is the Nigerian market. The division between the urban and rural populations in these polarized markets is clearly defined. Furthermore, the urban segments tend to behave like the consumer base in mature markets, while the rural segment presents much the same picture as the base in the growth markets. Analysis in this report has focused more closely on the mature and growth markets, since the consumer bases in those two archetypical markets separately present the same opportunities and challenges that exist in the dual consumer bases of the polarized markets.

Mature markets are the high-income countries of the Middle East. The populations of these countries are mainly clustered in cities and have mobile penetration far above 100 percent. Fixed infrastructure in the cities supports median fixed penetration of 30 percent. In these markets, any further noteworthy growth may come from data consumption and content – if monetized. In mature markets, pricing will be a very important lever for profitability; unlike in growth markets, price cuts beyond current levels will most likely destroy value. The relatively high price of voice service compared to data creates a significant risk of the erosion of voice revenue and thus profitability. Operators in mature markets should focus on capturing growth in consumer data and entertainment spending, selectively emphasizing fixed and mobile convergence to achieve this.

Exhibit 9 presents a snapshot of the median market in each of the growth, polarized, and mature archetypes, including demographics, financial data, and an assessment of the opportunities for telecommunications companies.

Exhibit 9

Economics and growth drivers for the median MEA telecommunications market in each archetype

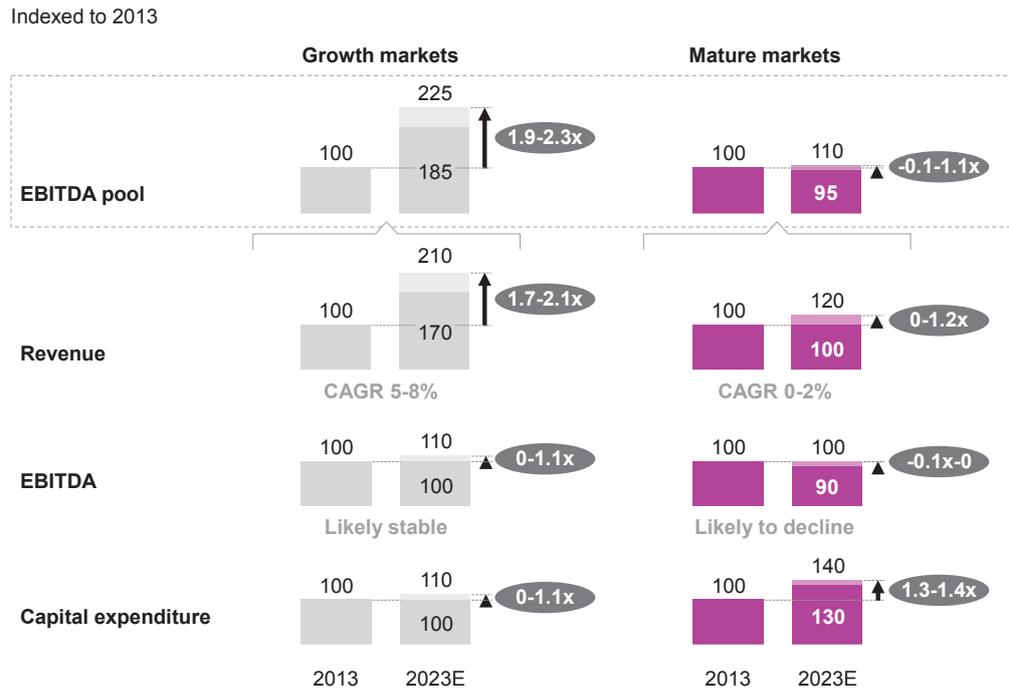
		Growth markets	Polarized markets	Mature markets
Economic context	Population Millions	39	40	4
	GDP per capita USD	677	3,100	43,000
	Urban population Percent	31	53	85
	Telecommunications spend, Percent GDP	4.7	2.4	2.0
	Market features	<ul style="list-style-type: none"> Lowest-GDP rural markets in Africa Still significant penetration potential Opportunity in state infrastructure provisioning Fixed maybe a barrier to data growth 	<ul style="list-style-type: none"> Low-GDP markets with 50% urban population in Africa Saturating mobile penetration, but data growth opportunity especially in cities Highly competitive with 3-5 mobile network operators, price wars; overinvestment may threaten margins 	<ul style="list-style-type: none"> Wealthy urbanized markets in the Middle East 5-6x higher ARPU vs. other markets creates monetization opportunities in video and data if price wars are avoided Favorable market structure of 2-3 players not yet reflected in margins: big opportunity
Market parameters	Mobile penetration Percent	51	100	160
	Average ARPU USD	4.1	5.0	28.8
	Fixed share Percent revenue	3	12	26
	Number of players	4	3	2

Operators in growth markets can look forward to increasing revenue pools by as much as 50 percent or even doubling in the next five years. The increasing scale may improve or stabilize profitability at an EBITDA range of around 38 to 42 percent. Operators in mature markets, like member states of the Gulf Cooperation Council, may, on the other hand, face stagnation and strong pressure on margins. These operators will have to make significant efficiency improvements to maintain profitability, including implementing smarter pricing, especially in the growing data segment, and higher capital efficiency (Exhibit 10).

They may also need to foster technology adoption by governments and business customers and expand to provisioning technologically refined services. There are no easy wins left.

Exhibit 10

Operators in mature markets will need to improve productivity to meet profitability challenges; in growth markets, companies could see 5% annual growth



Note: Analysis focuses on mobile only; growth markets used: Uganda and Tanzania; mature markets used: UAE, Saudi Arabia, Kuwait, Qatar, and Oman
 SOURCE: Analysys Mason

Scale and capital efficiency yield economic profit

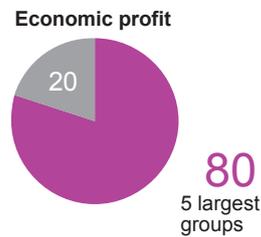
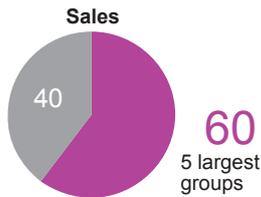
Operator profitability in the region is driven by both scale and performance. The economic profit generated by telecommunications operators in the last 3 years reveals that scale has been an essential factor in maximizing absolute returns. In this time period, the five largest operator groups generated 60 percent of regional revenues and 80 percent of the industry’s economic profit pool. For the ten largest operators, median profitability (measured as the NOPLAT margin⁷) was around 23 percent during this period, while the median for the smallest ten was under 14 percent. The largest operators achieved 1.8 capital turns annually versus 1.4 for the smallest. The intersecting profitability and capital-turnover numbers make clear that large telecommunications groups have a significant advantage over smaller groups (and individual single market players). This advantage may provide the basis for the future industry-consolidation story (Exhibit 11), and in the past helped finance acquisitions. Lower tangible capital ratio of the largest groups reflects their investments into inorganic growth, but even that, for almost all large players, did not bring down their economic profit below sector average.

⁷ Net operating profit minus adjusted taxes.

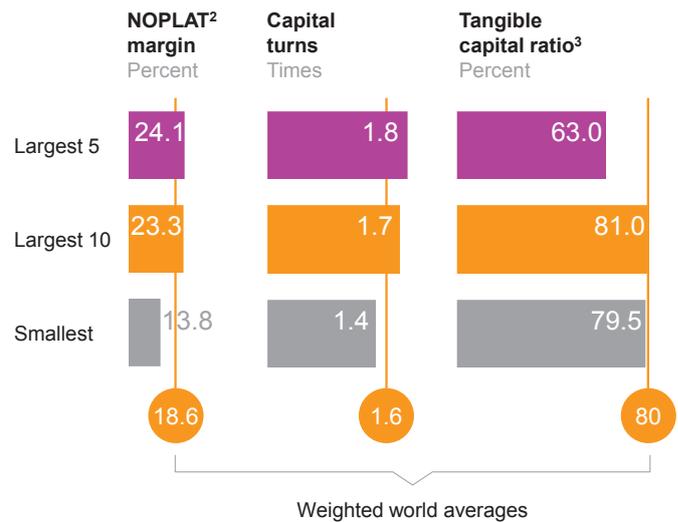
Exhibit 11

The region's largest operators achieve profit margins and capital turns superior to those of smaller operators, suggesting value from future consolidation

Scale and performance:
5 largest telecommunications groups in MEA¹
Percent



Median performance of largest and smallest telecommunications operators in MEA
Percent



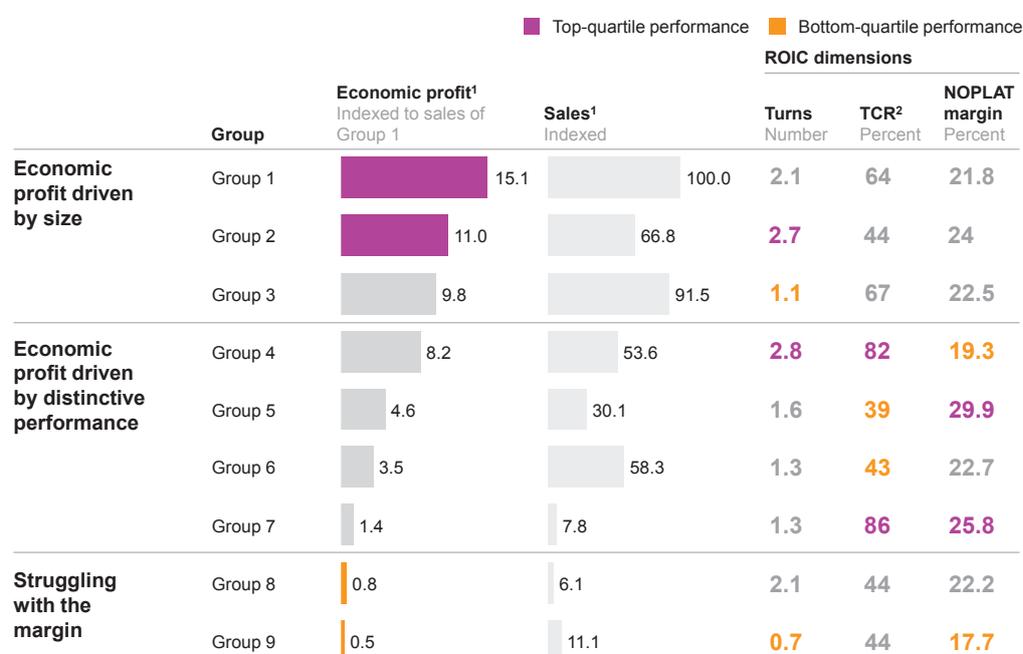
¹ Analysis based on a sample of operators in the MEA region
² Net operating profit minus adjusted taxes
³ Tangible capital divided by tangible assets

A more detailed look into how the largest groups generate high economic profit reveals diverse performance profiles and, for the entire sample, significant improvement potential. While their NOPLAT margin converges around the median of 24 percent, capital-related performance varies significantly. While best performers achieve a ratio close to 3, many are below 1.5, showing great opportunity to improve the monetization of capital expenditure, or at least manage their capex much more effectively. Similarly, tangible capital ratio (or simply the amount of capital used to finance operations rather than goodwill) shows a wide range of effectiveness, above 65 percent for best performers and below 50 percent for the rest (Exhibit 12).

We also examined how smaller operators can generate economic profit. These companies must achieve top-quartile performance in at least one dimension of economic value equation, while avoiding bottom-quartile performance in any other dimension. Thus tight management of both operations and capital spending is needed, especially as the future becomes tougher for all operators (Exhibit 13).

Exhibit 12

Performance advantages of scale and capital efficiency in the MEA telecommunications market: group-level analysis

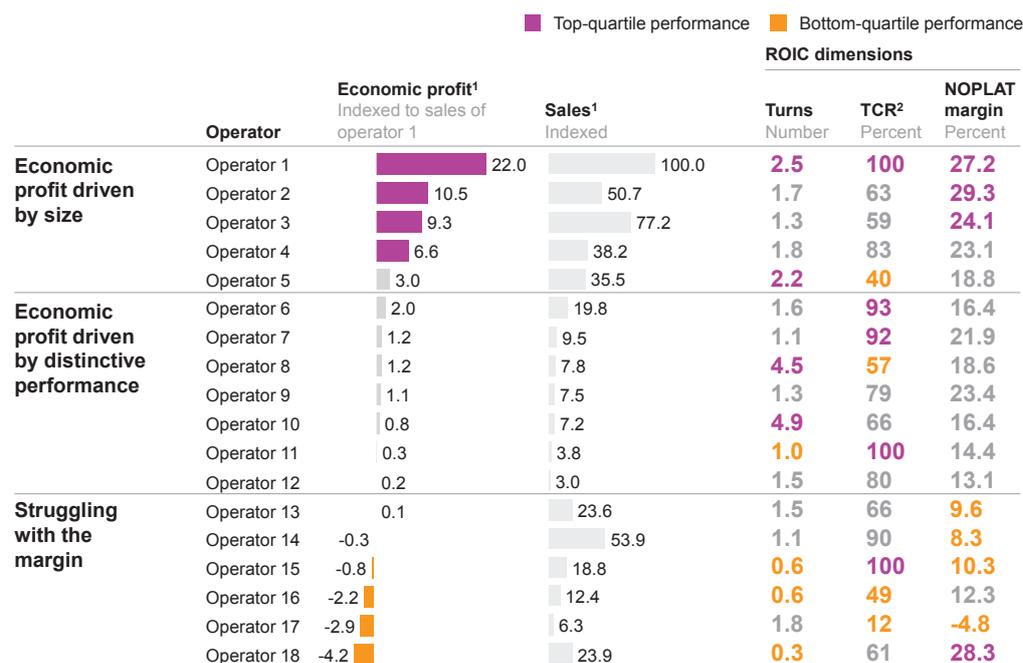


1 Sales are indexed to the largest operator and economic profit is scaled down to the indexed sales. Weighted average cost of capital is set at 9% for all operators
2 Tangible capital ratio

SOURCE: McKinsey Strategy Practice and McKinsey Corporate Performance Analysis Tool

Exhibit 13

Performance advantages of scale and capital efficiency in the MEA telecommunications market: operator-level analysis



1 Sales are indexed to the largest operator and economic profit is scaled down to the indexed sales. Weighted average cost of capital is set at 9% for all operators
2 Tangible capital ratio

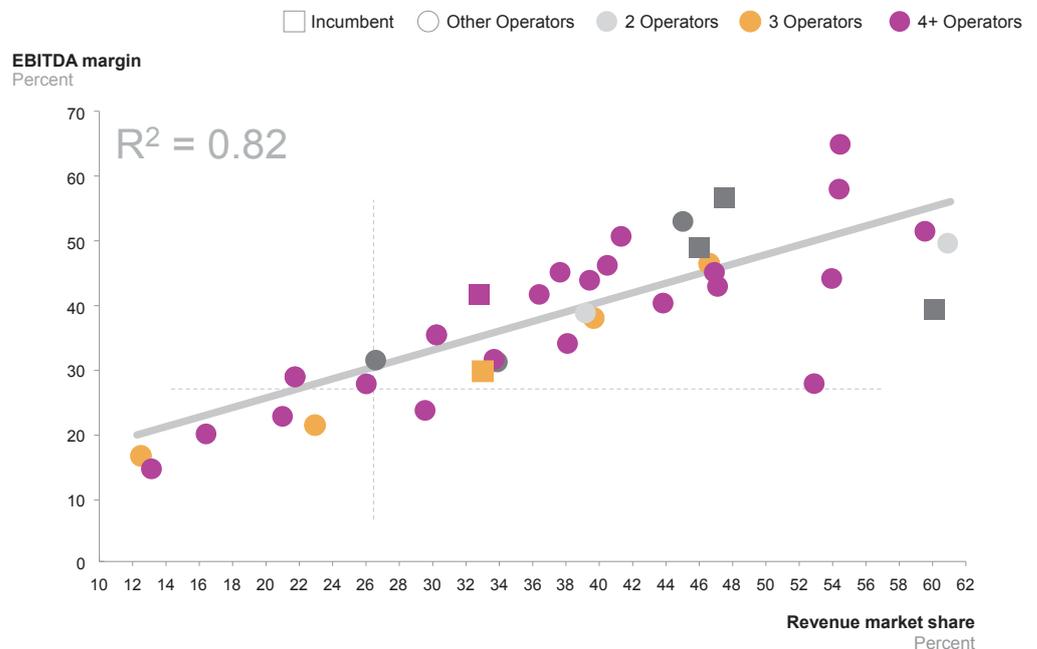
SOURCE: McKinsey Strategy Practice and McKinsey Corporate Performance Analysis Tool

In-market share fundamental for healthy margin

In the region, profitability of operations for individual players correlates strongly with in-market scale measured by achieved revenue market share. This relationship, between market share and profit margins, is evident everywhere in the MEA, as it is worldwide. Sustaining an EBITDA margin of 30 percent can be considered a minimum proxy value for achieving capital returns above the weighted cost of capital. Entrants unable to capture a significant revenue share of their market – more than 25 percent – will be unlikely to achieve EBITDA margins above 30 percent (Exhibit 14).

Exhibit 14

Without building a significant share of their market, entering companies will not likely be able to achieve EBITDA margins of 30%



Note: M2M revenue is excluded. Excluding markets with extremely high concentration: i.e., HHI above 4,300 (company controlling more than 2/3 of market)

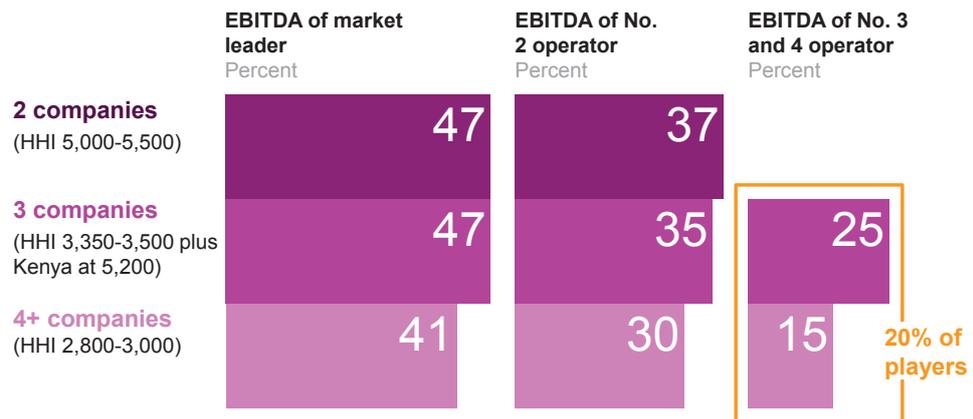
SOURCE: McKinsey Strategy Practice and McKinsey Corporate Performance Analysis Tool

The attainability of market share is closely determined by market concentration. In crowded markets, companies in the lower tier struggle to compete with better-positioned competitors. In markets with three or more competitors, late entrants can seek to improve their financial position through infrastructure-sharing alliances. Where only two competitors are present, market competitiveness can best be maintained with a strong regulator. The vast majority of MEA telecommunications markets have more than two competitors. The third- and fourth-place companies constitute 20 percent of all the operators in the region. Analysis shows that their EBITDA margins are between 15 and 25 percent – likely below the threshold for positive shareholder value creation based on operations alone over the long term (Exhibit 15). This means that one-fifth of individual operators has no long-term future.

Exhibit 15

In concentrated markets, lower-tier operators do not meet positive threshold for shareholder returns (as indicated by EBITDA)

Market concentration
(Herfindahl-Hirschman Index)¹



- **2-company markets:** Qatar, UAE
- **3-company markets:** Algeria, Egypt, Kenya, Kuwait, Morocco, Saudi Arabia
- **Markets with 4 or more companies:** Nigeria, South Africa, Tanzania

¹ The Herfindahl-Hirschman Index (HHI) is an accepted measure of market concentration obtained by squaring the market share of each competitor and totaling the results; the index can range from 0-10,000

SOURCE: World Cellular Information Service; company financial reports; Tariff Consultancy

The close relationship between market share and profitability means that investors must scrutinize profitability and capital efficiency equally, remembering that capital intensity levels in the telecommunications industry in MEA are higher than the global average.

Owners of subscale operators will need to decide if they will continue investing or, instead, will consider divestments or consolidation.

3. The turning point

Shareholders and managers will have observed that equity markets are showing less enthusiasm lately for telecommunications assets in MEA. The region has seen less growth and narrower margins, a decline insufficiently offset by slightly higher dividend payouts. Overall total returns to shareholders have been down 60 percent in the last four years. The downtrend is consistent with the decline in telecommunications valuation multiples, as companies in the sector have been converging gradually to levels of utility asset classes.

The region has seen less growth and narrower margins, a decline insufficiently offset by slightly higher dividend payouts.

Erosion of total return to shareholders

Analysis of total return to shareholders (TRS) in MEA telecommunications sector from 2004 to 2014 shows a decline from 14 percent in the 2004 to 2007 period to 9 percent from 2009 to 2014. Though still positive, shareholder returns have thus been falling – a new trend for an industry fueled by growth and innovation. The main reason for TRS erosion is stagnating growth: until 2007, TRS from growth was 13 percent, but since 2009, has fallen to 1 percent, while both margins and capital productivity registered negative changes (Exhibit 16).

Exhibit 16

The decline in total return to shareholders experience in the region is driven more by profitability and less by expectations of growth

Total return to shareholders: breakdown

CAGR, Percent	2004-14 ¹	2004-07	2009-14
Revenue growth	9.3	20	2
Capital investment (incl. GW)	-3.0	-6	-1
TRS from growth²	6.4	13	1
Change in margin	-3.7	-2	-3
Change in capital productivity	-0.5	-2	1
TRS from overall performance	2.2	9	-1
Earnings yield	8.4	8	9
Change in multiple	0	14 ³	2
Leverage	0.4	-3	3
Other ⁴	-7.2	-13	-4
Reported TRS	3.8	14	9

¹ Data for each period is from December - December (i.e., December 2004 - December 2014, December 2004 - December 2007, December 2009 - December 2014); the 1st period includes financial crisis of 2007-09

² Total return to shareholders from growth, net of investment

³ Includes change in total return to shareholders from December 2007 - June 2008

⁴ Non-cash changes in equity, pension liabilities, etc. on total return to shareholders

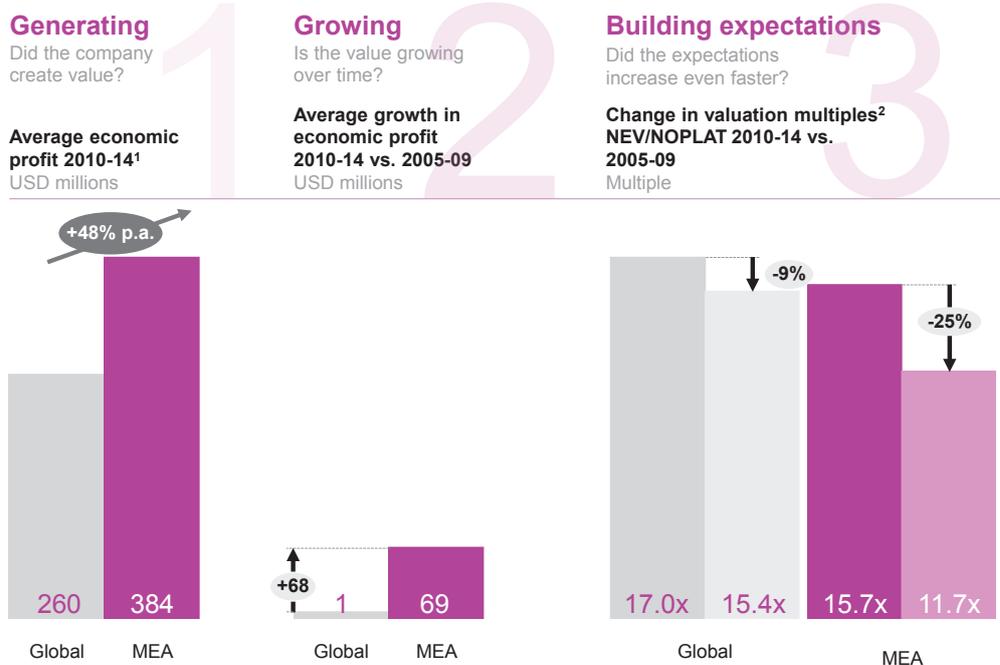
SOURCE: McKinsey Corporate Performance Analysis Tool, Capital IQ, Datastream

Valuation convergence towards utilities

The financial trend in telecommunications has been clearly reflected in market expectations and declining multiples. It remains true that from 2010 to 2014, the average annual economic profit of the largest MEA telecommunications companies (USD 384 million) was significantly higher than that of the largest global companies (USD 260 million). Those large global companies, however, maintained steady economic profit levels from 2005 to 2009 and from 2010 to 2014, while the average level of the MEA telecoms shrank by USD 69 million from period to period. This decline was also reflected in the decline in valuation multiples, from 15.7 in 2010 to 11.7 in 2014, creating a gap of 4 percentage points between MEA telecoms and global averages (Exhibit 17).⁸

Exhibit 17

Comparison of 2005–09 with 2010–14 reveals a decline in economic profit that has also depressed the multiples



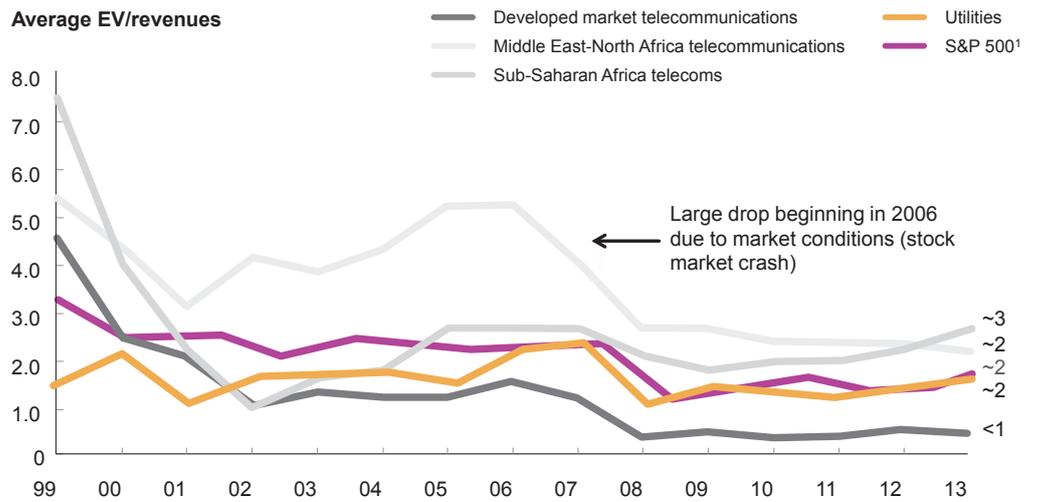
1 Defined as difference between NOPLAT and cost of capital (refer to technical appendix)
 2 Change in net enterprise value/net operating profits minus adjusted taxes
 3 Average of global top 1000 nonfinancial companies by revenue in 2014
 SOURCE: McKinsey Strategy Practice and McKinsey Corporate Performance Analysis Tool

⁸ Net economic value / net operating profit minus adjusted taxes multiple.

To understand the trend is to recognize that for MEA telecommunications companies, the ratio of enterprise value to revenue has converged towards levels comparable to utilities (Exhibit 18).

Exhibit 18

Financial markets are recognizing the changing market reality, and beginning to treat telecommunications companies more like utilities



- **Developed market telecommunications:** AT&T, Verizon, Sprint, Deutsche Telekom, Rogers, Optus, SK Telecom, Singtel, Telecom Italia, Telefónica Czech Republic, Telefónica Deutschland
- **Middle East-North Africa telecommunications:** Batelco, Etisalat, Jordan Telecom, Ooredoo, STC, Mobinil, Mobily, Wataniya, Nawras, Orascom, Vodafone Egypt, du, Maroc Telecom
- **Sub-Saharan Africa telecommunications:** Telkom, Sonatel, Safaricom, Vodacom, MTN
- **Utilities (global top 10):** American Electric Power Co., CLP Holdings, Duke Energy, EDF, Enel, Exelon, Iberdrola, NextEra Energy, PPL, Southern Company

¹ Excludes financial institutions

SOURCE: McKinsey Strategy Practice and McKinsey Corporate Performance Analysis Tool, Bloomberg

Regaining capital market trust will require reinventing operational models through the smart use of technology, adapted to an era of digital data.



4. Winning in the data age

The outlook for the telecommunications industry is very strong, as consumer demand for data transmission, entertainment, applications, and services continues to grow exponentially. Investors are still pouring capital into the sector and many assets are breaking valuation records. The key question for telecommunications executives in MEA is, therefore, how they can best take advantage of this boom.

Profitable connectivity

The growth story of the telecommunications sector consists of two stages: at first comes basic connectivity and then high-value services of the new digital economy can follow. The first stage is the core of the business and must be profitably executed. In recent years, telecommunications companies have invested up to 20 percent of annual revenue in connectivity. New-economy services are a completely different business. Telecommunications companies in the region are entering this growth stage, based on access to millions of connected customers, a base that can generate high cash flows. By definition, however, new-economy expansion cannot be undertaken alone. Operators in the region will need to partner with Internet and technology businesses in separate ventures outside the core business.

Success in the connectivity stage will be challenging enough. Even in a positive scenario, telecommunications revenues in MEA are expected to stagnate, while capital expenditure is likely to grow by as much as 40 percent, leaving less cash for shareholders. This trend will further push capital markets to commoditize industry assets and will make access to capital more expensive. On top of this, the region's energy-producing economies face drastically lower oil revenue while the currencies in many African economies have been highly devalued. As a result, returns on new network investments often fall below the cost of capital. To overcome the challenging economics, connectivity investments must be carefully planned. Last year, the average yield for voice service in MEA was markedly higher than for data: 20 times higher in mature and 12 times higher in polarized markets. In the past decade, the industry has been able to monetize roughly half of voice growth, but less than 15 percent of data growth.

Attaining market-shaping network attractiveness

In the new era of data centrality, markets will be shaped by those operators able to provide a superior network experience which attracts data-focused consumers who are willing to pay for differentiated quality. In the following, five essential levers for building competitive advantage shall be explored: advanced analytics, video and "over the top" (OTT) content, consolidation, new operating models, and digitization.

a. Advanced analytics

Future success also depends on the ability of operators to exploit the advantages of big data. After many years of being little more than a buzz word, advanced analytics is finally fulfilling its promise, with its three requirements now in place: plenty of data, inexpensive computer power, and algorithms for handling incomplete and unstructured data sets.

By applying advanced analytics, operators can better predict customer behavior. This ability can enhance the effectiveness of capital expenditure planning – in our experience, by as much as 30 percent – while improving top-line profitability of their networks. Similarly, advanced analytics can improve customer retention and promote targeted upselling. Operators can ease analytics resource scarcity by enabling data transfer to centralized capabilities across business units and geographies. CEOs should focus on changing the quality of data analytics across key markets and finding the talent to introduce and embed the needed algorithms into the decision processes.

b. Video and “over the top” (OTT) content

Over the last three years, the top global telecommunications companies have announced or launched hundreds of media development projects, making media the most active area for expansion. Nearly half of these announcements concern video or television offerings. Of the world’s regions, MEA now generates the least revenue annually from video consumption – USD 5 or 6 per capita versus an average of USD 30 in BRIC markets. The extreme low level of video consumption is only partly due to low income – even in MEA countries with income levels at BRIC averages, video penetration is comparably low. To capture the opportunity in digital video delivery, regional telecommunications operators may be better positioned than global providers. Regional incumbent pay TV providers possess the local content that global players have not yet secured, and will want to protect their core offerings. Local and global content can help create segmented, targeted platforms for youth segments, women, or important ethnic audiences, as even the region’s mature markets lag behind the rest of the world in differentiated offerings.

c. Consolidation

In the data era, network operators adequate access to spectrum in attractive frequency blocks and cost advantage (e.g., asset sharing) will play a fundamental role in sustaining returns required for investment. For those in shortage, partnerships or consolidation with spectrum holders may provide solutions (pending regulatory agreement). More generally, consolidation can reduce costs and investment requirements, making leaders stronger and allowing the less strong to survive, with access to competitive networks at lower cost per user. At the moment, the poorer MEA economies tend to be the more competitive, with three to five mobile network operators per market, as opposed to two or three in the wealthier markets. Industry leaders and investors should examine opportunities among performers in the bottom quarter of the market, given the weaker economic context, when valuations are lower by a combination of ratios and currency weakness.

d. New operating models

MEA operators need to realize 30 percent of cost savings overall to stay competitive and meet the demanding economics of the data age. To develop sustainable cost efficiency, companies will have to transform their operating models. We have identified three types of operating models that can help realize cost savings of 25 to 35 percent: *The value-focused local model*, *The cross-border scale model* and *The partnership web model*. Which operating model is chosen depends on the size and market position of the operator. To establish it, however, the operator needs to think big and make bold moves. Otherwise, competitors will take the lead with the advantage of being able to invest more in the market and network. Those left behind will likely be taken over by larger groups or activist investors.

e. Digitization

Once the master of customer value management and satisfaction, the telecommunications industry needs to catch up with other sectors and introduce a digitized business model. Their consumers expect this and cost as well as efficiency of operations will soon depend on it. For the most advanced customer segments, the digital customer experience is a true need. The satisfaction of segments that do not require it, furthermore, surges once they do experience the advantages of a digitized journey, such as payments management or lower tariffs. In our experience among diverse clients and markets, digitization of the customer experience has universally improved customer satisfaction while lowering CRM costs. Companies find their costs of customer acquisition and billing go down while execution accuracy improves. If operators looked into the digital experience, they might be well surprised at how far behind in digitization the telecommunications sector really is.

4a. Advanced analytics

The processes and functions of telecommunications operators are being quickly transformed by advanced analytics. Instead of complex sets of fixed rules that must be periodically updated, operator activities are increasingly determined by algorithms mining enormous data pools and continuously revising the best course of action in any given situation. By relying more on advanced analytics, network operators will soon be leaner and more agile, making complex decisions quickly and for optimal outcomes.

Network operators can use advanced analytics to reshape their organizations in unexpected ways. While many assume that the uses for this tool, with its strong predictive powers, are mainly in marketing, it can be used to address challenges across the entire value chain. Some of the biggest opportunities are actually in operations and strategy, where the anticipation of human behavior can help shape resource allocation for the construction and maintenance of networks. To take full advantage of the benefits of advanced analytics, operators will have to make essential changes in their processes. For network maintenance, for example, the process moves from scheduled preventive maintenance to triggered maintenance based on real-time data. Likewise in payments, which shifts from finance-driven collections to a marketing-driven process; generic campaigns for products give way to smart customer campaigns. No stone will be left unturned.

In our experience, telecommunications companies have been able to use advance analytics and machine learning to achieve performance improvements in four key areas: reducing support costs, increasing customer usage, acquiring customers more profitably, and managing customer value (Exhibit 19).

Exhibit 19

Telecommunications companies have attained performance improvements in key areas through advanced analytics and machine learning

NOT EXHAUSTIVE

Focus of today

TMT ML use case	Case #	Area	Description	Impact
Reducing support costs	1	Operational efficiency	Improve operational efficiency in sales, marketing and service leveraging lower cost to serve channels by identifying customers most likely to prefer digital servicing	25% cost per telesales reduction
	2	Infrastructure operations optimization	Use predictive analysis to identify network issues and inefficiencies based on usage patterns, lead metrics, traffic analyses and network parameters	20% spend reduction ¹
	3	Infrastructure investment optimization	Rationalize assets and improve utilization based on usage and machine-generated data to reduce required capex	Up to 30% capex reduction
Driving customer usage	4	Cross-sell and up-sell	Develop targeted, personalized campaigns using predictive analytics based on demographics, product portfolio, transactional behavior and contact history	~2x higher sales conversion
	5	Pricing	Optimal pricing of connectivity services and premium content based on analyses of large transaction data sets and consumer behavior patterns	€200-300m promo spend reduction
	6	Customer targeting	Prioritize potential customers, to predict likelihood to buy	10% increase in new customer acquisition
		Offer targeting	Develop next product to buy algorithms using predictive analytics based on demographics, transactional behavior and contact history	10% increase in connects
Acquiring customers profitably	8	Marketing mix modeling	Maximize RoI on media spend by using multi-variable modelling to design the optimal media mix (across channels)	~20% in spend for same returns
	9	Be proactive	Proactively identify service issues to resolve and notify customers of issues and remediation efforts.	~25% call volume reduction; 15% higher CSAT
Managing customer value	10	Retail distribution	Optimize retail network by analyzing consumer footfall and multi-channel behavior to determine optimal format by location and network footprint	>15% store footprint reduction ¹
	11	Churn prevention	Use predictive analyses based on usage history, billing patterns, pathways of acquisition, browsing history to predict consumers at risk from churn	>3.5pp churn reduction
	12	Fraud/Credit management	Identify likely non-pay customers and/or fraudulent activity to optimize treatment at acquisition and collection moments	8-13% reduction in losses

¹ Non-TMT cases

Churn prevention is one area that has become a concern of telecommunications executives the world over. Its importance in MEA is great, as operators here lose 25 to 35 percent of annual revenues to customer attrition. Given low direct cost incurred when customers are added to the network, the revenue loss is almost directly linked with profitability. Addressing it could bring dramatic change to operators' bottom line. Operators have devoted much attention to the problem, addressing it with many improvement programs, but churn figures are still high.

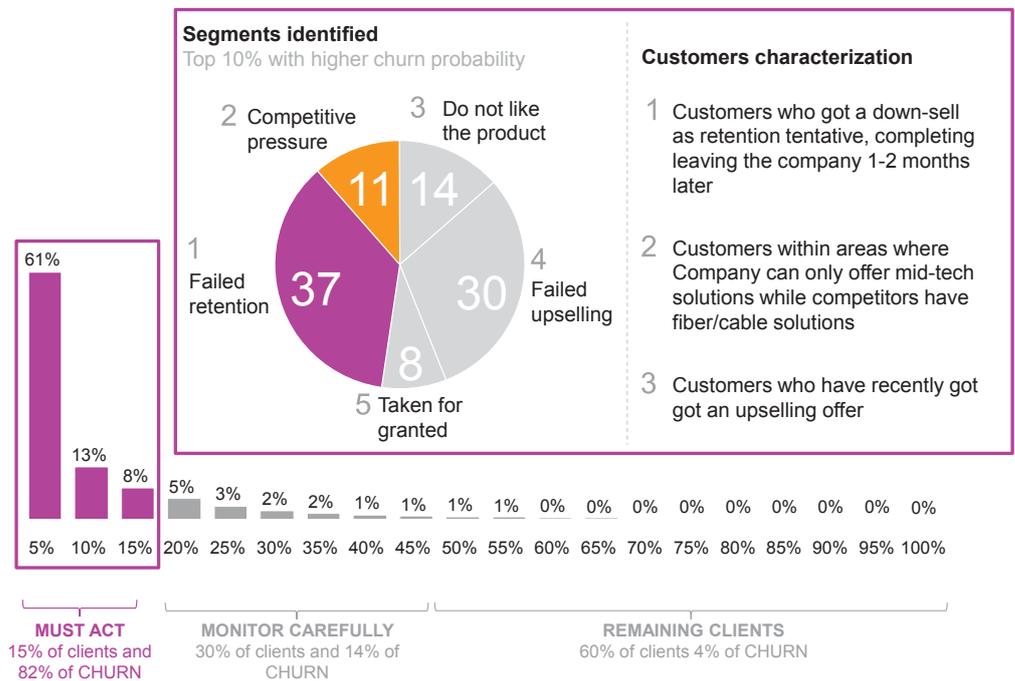
With advanced analytics and machine learning, operators have a better chance of understanding churn and its causes. In our experience, most (around 80 percent) of churn is concentrated in a fraction of the user base (around 15 percent). By identifying potential churners, operators can target them with product campaigns and other actions without risking value destruction among loyal subscribers. The approach has resulted in churn reductions of 10 to 15 percent (Exhibit 20).

Exhibit 20

Advanced analytics techniques have been proved to provide much higher accurate prediction and actionable insights

Fixed. Real churn prediction from our Machine Learning-based model

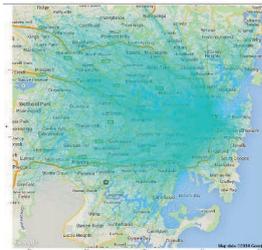
ACTUAL DISGUISED CLIENT RESULTS



Precise understanding of customer behavior patterns will also permit more efficient and effective capital expenditures. When designing a telecommunication network, operators must identify the quality requirements of the different market segments, customer behavior and roaming patterns, willingness to pay, and value for the operator. Using advanced analytics, operators are able to track these variables for each customer on a daily basis and develop optimal solutions based on machine-learning algorithms (Exhibit 21).

Step 1

Follow your customers



- The image above shows the 2-week “customer journeys” of our target clients
- Every line is a customer, but no patterns emerge to the human eye
- Actually, it looks like you actually need to fully cover the whole town!

Step 2

Uncover their mobility and usage patterns



- But in fact, those patterns exist, and we have a proprietary method able to uncover them for you
- Our algorithms based on Machine Learning reveal how similar people tend to flock together within a fairly limited geographical area

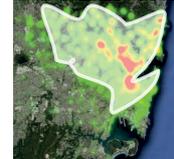
Step 3

Estimate Capex needs for each Cluster of customers...at the site level!

Cluster 3



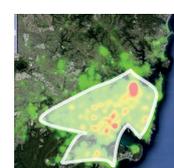
Peak capacity



Cluster 4



Peak capacity



Cluster 6



Peak capacity



Operators using advanced analytics can thus focus on as little as 15 percent of their customer base instead of 60 percent, thereby becoming much more agile and effective.

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We are able to raise generated revenue and customer satisfaction beyond the level of base transceiver station cells, across entire customer base. Operator using this method can precisely prioritize network investments to maximize revenues from key revenue-generating segments. With this new approach operators were able to reduce network capital expenditure by more than 30 percent, without putting at revenues at risk.

A strategic approach: quick wins, deep structural change

To realize the potential of advanced analytics, companies will need a more strategic approach, driven by new talent and technology, that pushes fact-based decision making and analytics thinking deep within their organizations.

- **Asking the right questions.** Rather than starting with the data and studying it for potential insights, companies should begin by identifying business problem they face and calculating the value of addressing them. Be clear and precise about the challenge to be addressed. For example, instead of asking analysts to seek insights in sales performance, have them assess the company's footprint, looking for exact locations where it could be increased or decreased to improve customer acquisition. Many organizations that believe poor data quality is preventing them from realizing value from analytics are often asking the wrong questions.
- **Start with the data you have.** Many operators assume the best route to advanced analytics is to begin by upgrading from small data to big data while continuing to use their traditional analytical approach. The approach is based on a mistaken belief that the move to advanced algorithms can only proceed after data sets have been significantly extended. In fact, companies are better off using data all operators have right away, including detailed usage information, customer locations, and network performance, then adding an advanced algorithm model and rapidly delivering impact.
- **Develop a full scale implementation.** Once the concept has been proved and the organization is ready to move to the next level, it will need an inventory of all elements required to capture full impact from the use case. For example, it may need new tools for gathering, storing, and analyzing data. It may also need new tools for actually pushing the insights through the organization to the frontline.
- **Reorganize for analytics and embed the change.** Even network operators that have assembled the right tools and technology and identified high-value challenges will fail to realize the full potential of advanced analytics without making some fundamental shifts in their culture and organizational structure. Reorganizing to ensure a robust data capability is essential. Most organizations today have only a limited governance structure for big data and analytics. The capabilities are fragmented and uncoordinated across various business units. A few best-in-class companies, however, have moved to a hub and spoke structure. In the hub, a chief data analytics officer, manages a small, agile and innovative enterprise-data and analytics team. The hub is responsible for data governance, key strategic analytical issues, and managing the company's databases and strategic analytics. At the same time, each line of business has its own small analytics team to provide support to the unit's decision makers.

The telecommunications industry is in the early stages of an advanced-analytics revolution. That sounds like a good thing. Unfortunately, much of the digital world is way ahead. Companies in other industries are making inroads that could severely compromise the competitive position of telecommunications operators, rendering them little more than backend suppliers of commodity connectivity. Network operators that are able to make the leap to a more digital, analytics-driven business model will be in a better position to retain and maximize their customer relationships and their stature. Making that leap, however, will require new ways of thinking, new kinds of leadership, and deep cultural change.

Companies in other industries are making inroads that could severely compromise the competitive position of telecommunications operators, rendering them little more than backend suppliers of commodity connectivity.

One of the key challenges in building and maintaining analytical advantage is talent management. Attracting and retaining people with the necessary skills are hard to do in any market, but particularly difficult in MEA. But telecommunications groups operating in many MEA locations can solve the problem with “centers of competence”—centralized talent hubs that achieve the scale sufficient to address the analytics challenges across the group. The groups able to execute the approach successfully will gain sustainable competitive advantage over local companies and other groups unable to deploy analytical skills to local operations.

4b. Video and “over the top” (OTT) content

Video and Internet-based streaming—“over the top” (OTT)—have become the most popular avenues for adjacent revenue growth among leading telecommunications companies. Slowing growth in core revenues across the global telecommunications industry has spurred interest in developing adjacent revenue streams in areas such as financial services, business-to-business (B2B) IT services, and e-commerce. Media has been the leading area, with hundreds of media development projects announced by the top global telecommunications companies over the past three years. Nearly half of these projects are related to a video or TV offering. Leading telecommunications operators in the Middle East and Africa are part of this trend, launching or planning to launch video offerings in the near term.

The interest in video: a combination of necessity and opportunity

The motivation for operators to enter video is primarily based on four reasons:

1. There is significant growth potential for media consumption in the region. MEA has the lowest per-capita consumption of video of any region globally, even when correcting for differences in regional incomes.
2. Video already makes up about half of the traffic carried by mobile networks. For operators, monetizing this traffic effectively is essential if revenue growth is to keep pace with rising costs due to exponential traffic increases.
3. Operators can take advantage of significant opportunities for cross-selling and up-selling to their existing customer base. Past launches of OTT content have reduced churn by as much as 15 percent among existing customers who take up a second service.
4. Global OTT providers have recently entered the market and their position is still to be determined. At the moment, MEA telecommunications companies have the edge. They already have the base, budget, distribution, and capabilities needed to deliver OTT video and are well placed to win if they act before the global competition becomes better established.

While video represents a growth opportunity, it is equally important for containing costs and defending core revenues. Exponential growth in mobile video traffic is inevitable as MEA consumer demand begins to converge with global averages. Telecommunications companies will have to bear the costs of this growing demand, but will not see automatic revenue increases, since yields on data traffic are shrinking. Maintaining margins will require the capture of additional revenues from the video traffic carried in the form of a video and advertising offering.

The billions at stake

The MEA region currently generates the least income from video consumption in the world, at USD 5 – 6 per capita per year, compared to the BRIC average of USD 30. In 2015 the market size was USD 300 million. Should per-capita spending on video consumption rise to BRIC levels by 2020 (0.4 to 0.5 percent of average income), the market would expand to between USD 1.6 billion and USD 2.8 billion by 2020, with 2,700 petabytes of mobile data traffic generated each month (Exhibits 22, 23).

Exhibit 22

Annual per-capita video consumption in the MEA is expected to rise from USD 5 to 7.25, mainly through ad-based and transactional video on demand

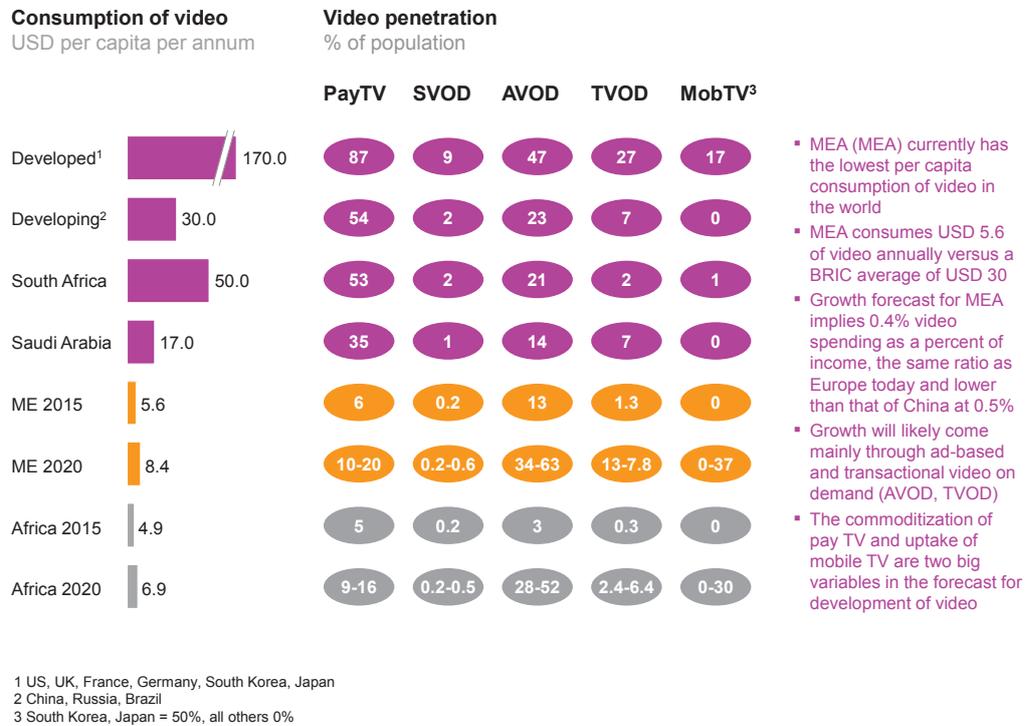
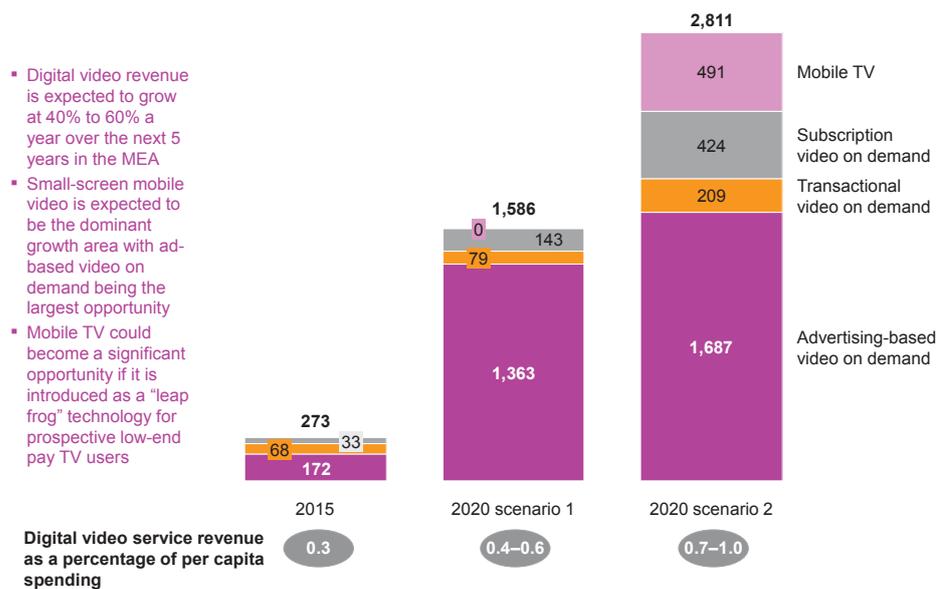


Exhibit 23

Market-size forecasts for digital video in MEA

Revenue USD million; scenarios for 2020 based on per-capita spending as a percentage of income



SOURCE: Statista, IHS, team analysis

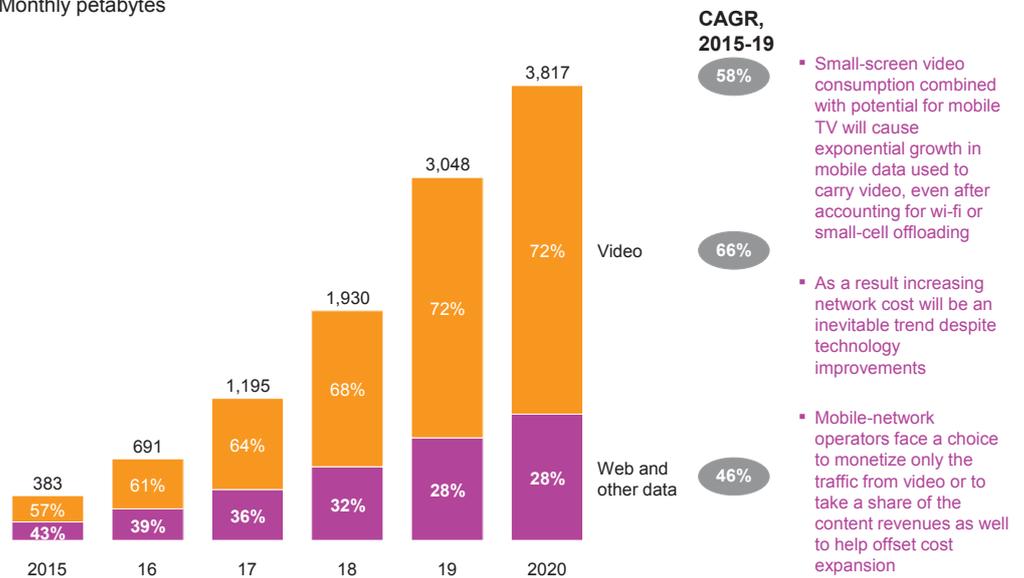
Given how the market is developing, growth in the MEA region will likely come from content-monetization models for advertising-based and transactional (pay-per-view) video on demand (AVOD and TVOD). Two big variables in the forecast for the development of video are commoditization of pay TV and uptake of mobile TV. One scenario, in which operators increase mobile TV uptake while pay TV offerings at a sufficiently low price point remain scarce, suggests a digital video opportunity on the higher end of the range.

The growth in video consumption will have an especially dramatic effect on video traffic on mobile networks. This consumption is expected to increase by 12.5 times over the next five years (Exhibit 24). Monetization of this traffic will be at lower yields than those enjoyed historically, the expectation is for yield on data traffic to fall from USD 2.0/MB to USD 0.5/MB on average, meaning that the 12.5 times increase in traffic will yield revenue growth of less than 3 times. This will mean that revenue from video content, excluding traffic revenue, will grow from 7 percent of total video revenues to 15 to 30 percent of total video revenues. The shift highlights the need for telecommunications companies to capture content revenues.

Exhibit 24

Video accounts for 57% of mobile data traffic in the MEA; this share is expected to grow 66% annually and contribute 72% of total traffic by 2020

Mobile data traffic forecasts for MEA 2015–20
Monthly petabytes



SOURCE: CISCO

Staying ahead of global competitors

Telecommunications operators in the MEA region are well positioned to beat global competitors in digital video, if the locals act before the international companies are better established. The global OTT companies have not yet secured local content, while incumbent pay TV providers have more incentive to protect their core high-end offerings.

MEA operators have many of the five factors required to succeed in video.

- 1. Reach.** An existing customer base is a significant advantage when launching a new type of offering. Telecommunications companies have some of the largest customer bases in the region, with established relationships and communications channels.
- 2. Access to content.** Premium, exclusive, local content is most effective for driving adoption of video on demand. Telecommunications companies have an extensive presence throughout the region. They are also relatively cash-rich, and thus have the wherewithal to secure exclusive access to local content before the global OTT competitors establish themselves in the market. While the MEA telecommunications incumbents have an advantage in access to content access, they are less capable in content management. They must, however, develop this capability, whether through talent acquisition or partnerships.
- 3. Affordable package.** Constructing an offering at the right price point and bundling it with established products would accelerate wide adoption. Telecommunications companies can bundle with core products and realize a cost advantage through sunk costs of distribution, communication, and acquisition.
- 4. Marketing budget.** As digital video is still a relatively unknown service in many MEA markets, significant marketing efforts will be required to build awareness and understanding. Telecommunications companies have large above-the-line budgets with a potential cost advantage due to their scale.
- 5. Technical capability.** Telecommunications companies can build on their network infrastructure to provide high-quality service, including content delivery, video compression, and prioritized traffic. While connectivity is a big advantage for MEA telecommunications companies, most cannot yet provide recommendation engines and user interface. Both of these capabilities are critical elements of the video offering, and MEA companies unable to provide them will have to partner with the specialist OTT service providers that are well established in the market.

Digital video is still a nascent business in the MEA region; MEA telecommunications companies can proceed, however, based on lessons from emerging success cases globally, which demonstrate the capabilities of companies in the industry to capture this opportunity (Exhibit 25).

Telecommunications companies have successfully launched mobile video with high uptakes, direct revenues and impacts on the core

Example	Description	Impact
Verizon	<ul style="list-style-type: none"> Extended existing deal with NFL, buying OTT rights for \$1 billion for 2014-17 seasons, with exclusivity for most important games Offers a premium version of NFL Mobile which allows live stream of most popular games <ul style="list-style-type: none"> Free for premium subscribers \$5 for other Verizon subscribers 	<ul style="list-style-type: none"> 12 million active users in 2014 (10% of customer base), one-third of which are paid subs
AirTel	<ul style="list-style-type: none"> Used compression technology to offer 30,000 video downloads <ul style="list-style-type: none"> INR 1 (\$0.02) for short clips INR 15 (\$0.30) for movies Service available on 2G/3G/GPRS and feature phones <ul style="list-style-type: none"> INR 1 (\$0.02) for short clips 	<ul style="list-style-type: none"> 10 million consumers (20% of 2G/3G subscribers) Average data consumption and revenue per unit (ARPU) rose by 117% and 65%, respectively
BT	<ul style="list-style-type: none"> Acquired rights for live EPL games for 3 years, for £738 million and through acquisition of ESPN UK, rights for FA cup, Scottish premier league, Europe league and Bundesliga Sports channels are offered for free to all BT broadband customers and as a paid service to Virgin and Sky customers 	<ul style="list-style-type: none"> Broadband net adds increased by 50% for 3 consecutive quarters after the launch Retail revenue growth increased from -1% to 10% over the same period
KPN	<ul style="list-style-type: none"> Strengthened its IPTV offering with OTT TV app Offered free multiscreen OTT TV service to all TV subscribers Launched an SVOD service (Play.), available to KPN and non-KPN customers in 2015 	<ul style="list-style-type: none"> Data bundle uptake doubled over 1 year 20% 3G data consumption increase and 60% 4G data consumption increase after 1 year

SOURCE: McKinsey, press search, company websites, team analysis

Keys to success: compelling value and an agile organization

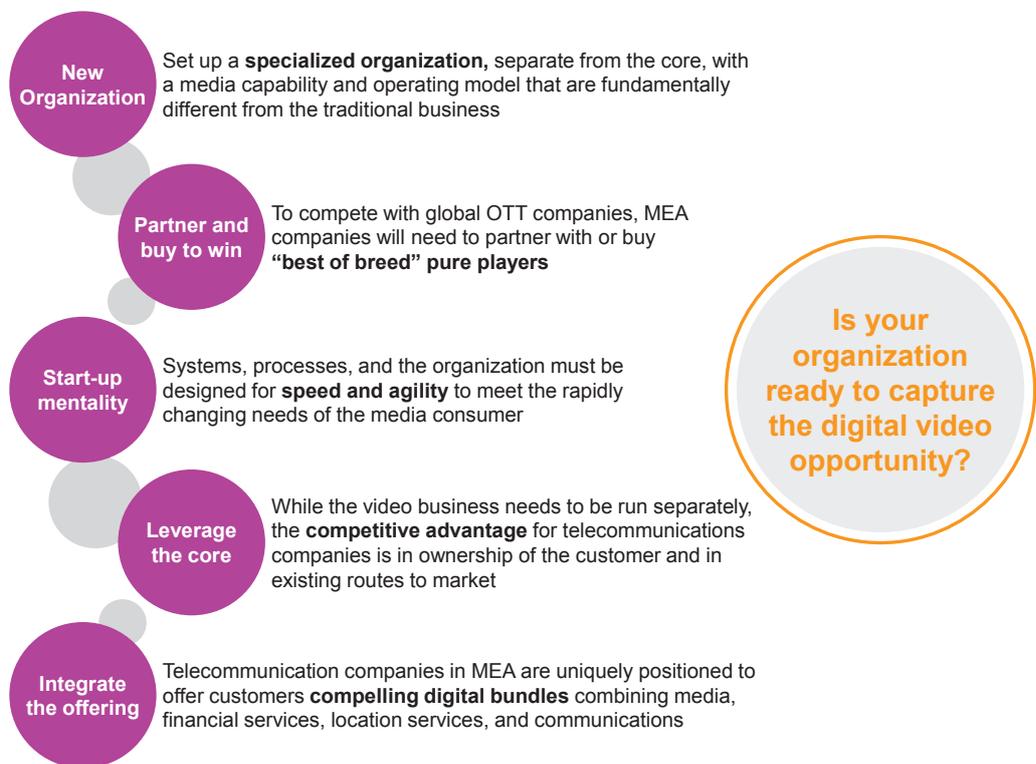
Telecommunications companies will have to make basic decisions on positioning their video businesses—in terms of content provision, targeted customer segments, and an advertising- or subscription-based commercial model. Operators in the region have tried many approaches; their experience suggests the following considerations for MEA incumbents, in terms of the value chain, customer segments, and monetization.

- Value chain.** Acting as content aggregator for local and global producers, on an exclusive basis wherever possible, is usually advantageous. Focus on delivering high-quality, exclusive local content, while compiling a competitive nonexclusive offering for international content. Companies can add value and establish competitive advantage by leveraging their ownership of the customer relationship. They can thereby promote a proprietary platform and utilize customer data to generate effective recommendations.
- Segments and monetization.** The high-income segment is well penetrated by incumbent pay TV providers that offer digital video as subscription video on demand add-ons to their core products. The mass market however, is unserved. Operators that can tap into their low- and middle-income prepaid bases through an offering focused on advertising and transactional income rather than subscriptions could capture a significant new video market.

For these propositions to succeed, operators will need to establish an agile organization, separate from the core business, and equipped with new and extensive media capabilities. They will have to enter into partnerships to acquire content, technology, and analytics requirements, and it will be important to choose partners (or acquisitions targets) well, to ensure prompt time-to-market delivery. Desirable content remains the only way to gain structural competitive advantage; securing the right content at the right cost will be critical for success. While the video business should be separate from the core, the capabilities of the core business can be used to advantage. By bundling the video offering with products from the core business, companies will have the edge over pure-play video organizations (Exhibit 26).

Exhibit 26

To capitalize on the digital video opportunity, operators will have to work differently



MEA telecommunications operators can make a number of strategic moves in media. Models vary according to the type of content, the way it is delivered and what kinds of partner relationships are entered into (Exhibit 27). In all likelihood, more than one of these moves can be made in combination, depending on the market situation and the position of the operator. An optimally successful end-to-end video offering, from strategy to implementation, can only be the result of thoroughgoing contextual analysis, one that comprises the strengths and weaknesses of the operator, available partners, and the market itself.

Exhibit 27

MEA telecommunications companies can make 5 strategic moves in video; situation of each will determine the optimal combination

	Target segment	Content	Business model	When would you do this?	
Ad-based video on demand (AVOD)	All mobile users: small screen	Deliver existing OTTs	<ul style="list-style-type: none"> Major over the top operators (OTTs) 	<ul style="list-style-type: none"> Differentiate on experience, become best network for video Monetize through bundles, acquisition, retention Mobile delivery cost reduction 	<ul style="list-style-type: none"> Unable to differentiate on content Opportunity to differentiate on experience
		Create and aggregate unique content	<ul style="list-style-type: none"> User-generated content Local short-form content International low-cost short content 	<ul style="list-style-type: none"> Aggregate free content and own platform to rival major OTTs based on localization Monetise through advertising Mobile delivery cost reduction 	<ul style="list-style-type: none"> Global OTTs do not cover local content well Ability and funds to develop own platform and to acquire content
Transactional (pay-per view) and subscription video on demand (TVOD, SVOD)	High-value residential users: large screen and multiple devices	Deliver existing OTTs	<ul style="list-style-type: none"> Major over the top operators 	<ul style="list-style-type: none"> Differentiate on connectivity experience with a combination of fiber, LTE, DTT Exclusive partnership with OTT 	<ul style="list-style-type: none"> Opportunity to partner due to base ownership Can differentiate on experience
		Aggregate unique content	<ul style="list-style-type: none"> Unique catalogue of non-exclusive premium local and international content 	<ul style="list-style-type: none"> Differentiate on connectivity experience – combination of fiber, LTE, DTT Create or buy platform, such as pay TV provider Compete with major OTTs through base ownership and earlier launch of local content 	<ul style="list-style-type: none"> Global OTTs do not cover local content well Ability and funds to develop own platform
		Deliver exclusive content	<ul style="list-style-type: none"> Exclusive local or international content and/or own new content 	<ul style="list-style-type: none"> Differentiate on connectivity experience with a combination of fiber, LTE, DTT Create and/or buy platform and content Compete with OTTs through base ownership and exclusive ownership of local and international content 	<ul style="list-style-type: none"> Global OTTs do not cover local content well Ability and funds to develop own platform High-quality exclusive content partnerships and funding available

4c. Consolidation

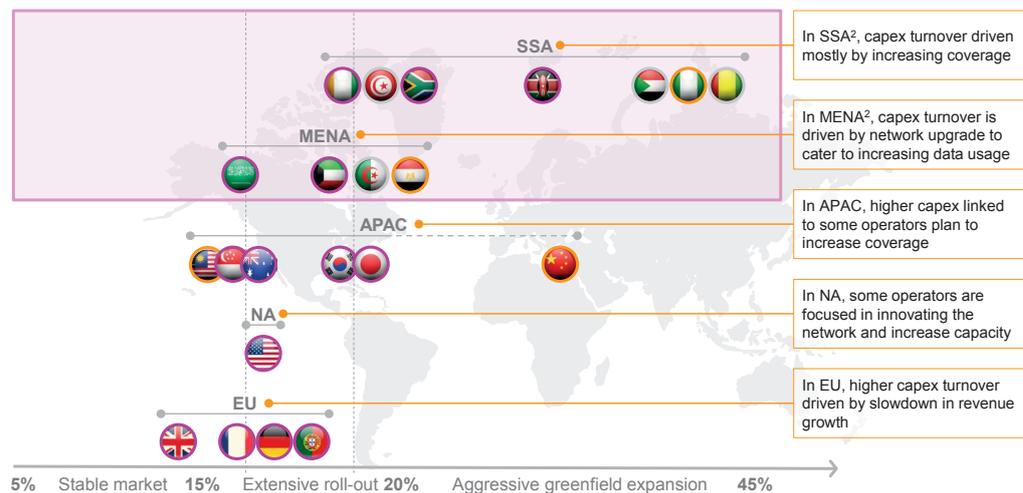
As shown in the foregoing analyses, some MEA operators have gained big performance advantages from economies of scale. The advantage of scale will only grow in the industry, as operators face investment demands to expand their geographic coverage and roll out 3G and LTE programs. In growth markets, for example, operators face higher capital expenditure requirements, as they need to raise coverage levels to meet rapidly increasing mobile penetration. Operators in mature markets, meanwhile, experience high capital expenditure turnover, as they upgrade network performance to handle increasing data usage and meet rising consumer expectations for speed and capacity (Exhibit 28).

Exhibit 28

High capital expenditure requirements in sub-Saharan Africa for coverage and in the Middle East-North Africa for data rollout

CAPEX/Rev for operators¹
Percentage 2011-14

○ 3G in service ○ 4G planned/<30% coverage ○ 4G in service



¹ MENA (Middle East-North Africa) includes data from Algeria, Egypt, Iraq, Jordan, Kuwait, Saudi Arabia and Syria; SSA (sub-Saharan Africa) includes data from Cameroon, Cote d'Ivoire, Guinea-Bissau, Kenya, Nigeria, South Africa, Sudan and Tunisia; APAC (Asia-Pacific) includes data from Japan, Malaysia, Singapore and South Korea; NA (North America) includes data from the U.S. and EU (Europe) includes data from France, Germany, Spain and UK; ² In MENA and SSA, most operators are mobile-only; Source: WCIS; Telegeography

Not all operators in the region will, however, be able to benefit from scale advantages. Many are too small to attain sustainable returns on capital. In sub-Saharan Africa, a region containing both growth and polarized segments, 173 mobile operators are active, but the combined market share of the bottom 58 operators is less than 15 percent. For these operators, narrow EBITDA margins may not provide enough cash flow to invest at scale in coverage and data, nor sufficient returns to cover the cost of capital.

Scale remains a requirement of industry success despite the crowded competitive landscape. Consequently, the market will tend to move in a consolidating direction. Three developments will define this trend: network sharing, acquisition and spectrum sharing, and in-market rationalization and consolidation. The movement may create opportunities among smaller players as well as incumbents and attackers. Each kind of consolidating development can create value, but all have risks that must be addressed, as well as regulatory hurdles and implementation challenges.

Network sharing

Network sharing can reduce capital expenditure requirements and costs, as has been demonstrated in highly regulated European markets, including UK, Poland, and Romania. Network-sharing deals are an alternative to full-fledged consolidation in many markets. In MEA, they are likely to proliferate in the next years.

The trend may start with only passive infrastructure sharing, leading later on to full network consolidation by operators or the sale of infrastructure to third parties. Sale and lease-back of towers is an emerging solution in Africa. Airtel recently sold 60 percent of its towers to different buyers, while Etisalat Nigeria sold all of its towers to HIS.

This option can free-up cash, but it is also creating large pan-African tower and infrastructure companies, like American Towers or HIS, which could soon emerge as network consolidators. Network sharing or the selling off of towers could also impede an operator's ability to create a qualitatively distinctive network. For incumbents, the lost edge in network distinction could outweigh the cost benefits of this approach. They are less likely to pursue this path for legacy technologies unless attackers bring network savings and scarce spectrum. From the attacker's perspective, sharing capital expenditure and operating costs frees up cash that can be reinvested to achieve commercial excellence, faster growth, and a better network. A more symmetric benefit may lie in deep network sharing of new technologies like LTE, given a smaller base of legacy assets and a need for higher tower density. Operators who team up at this level should be able to achieve a fast, high-quality rollout of the model.

Acquisition and sharing spectrum

The definition of scarce assets in the world of telecommunications is changing, as data more clearly becomes the core service of the future. Spectrum availability will define growth potential for operators and will thus be viewed as a strategic scarce resource. Spectrum sharing or acquisition may be one of the solutions, pending regulatory approval. As mentioned before, for incumbents, sharing networks with smaller players with spectrum abundance could be attractive.

In-market consolidation

Consolidation in the form of in-market mergers of two players can be expected in a crowded and intensely competitive landscape. By such mergers, operators can gain the scale they need to improve cost and investment economics; with the decrease in the number of companies, furthermore, competitive intensity is rationalized. These moves have been executed successfully even in the highly regulated European market, with the Orange-T-Mobile merger being the largest example.

In MEA, consolidation of specific operating companies will most likely be driven by expected benefits of scale and scope. Critical regulatory approval will be helped if operators can prove that a merger will yield a higher-quality network and better and faster service while holding the line on price increases. Three types of in-market consolidation will be possible:

- Portfolio rationalization.** Large operators may decide to cut or sell underperforming assets. Most large MEA companies have assets that are in the third or fourth position in their markets, and thus pull down overall portfolio performance. Likely, these operators will be weighing whether the performance of such assets can be improved or whether they are logical candidates for this kind of rationalization.
- Asset swaps.** Assets swaps between large pan-African groups could be mutually beneficial to gain scale in strategic markets. An outside-in analysis suggests large groups have substantial overlaps in country footprints, creating conditions for potential multicountry deals. Among the largest telecommunications groups in the MEA, in 28 instances, two groups each have a mobile network operator (MNO) in a particular market; in 10 instances the overlap occurs in more than one market (Exhibit 29).
- Pure consolidation deals.** Pure consolidation deals between individual players may also happen in the future, though recent private-sector attempts have not succeeded. State-owned entities also provide an opportunity for this type of consolidation.

Exhibit 29

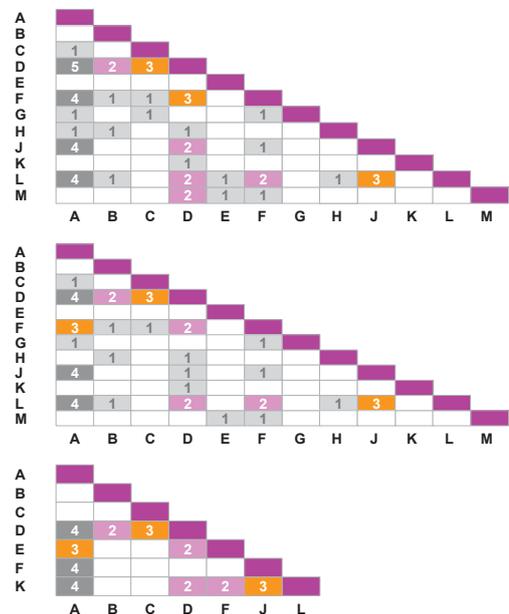
The footprints of large telecommunications groups have overlapping areas, creating potential for multinational deals

Mobile network operator pairs with overlapping footprint

28 Instances in which telecommunications groups have more than one mobile network operating company in a particular MEA market

24 Instances in which countries have more than two mobile network operators

10 Instances in which footprints overlap in two or more countries



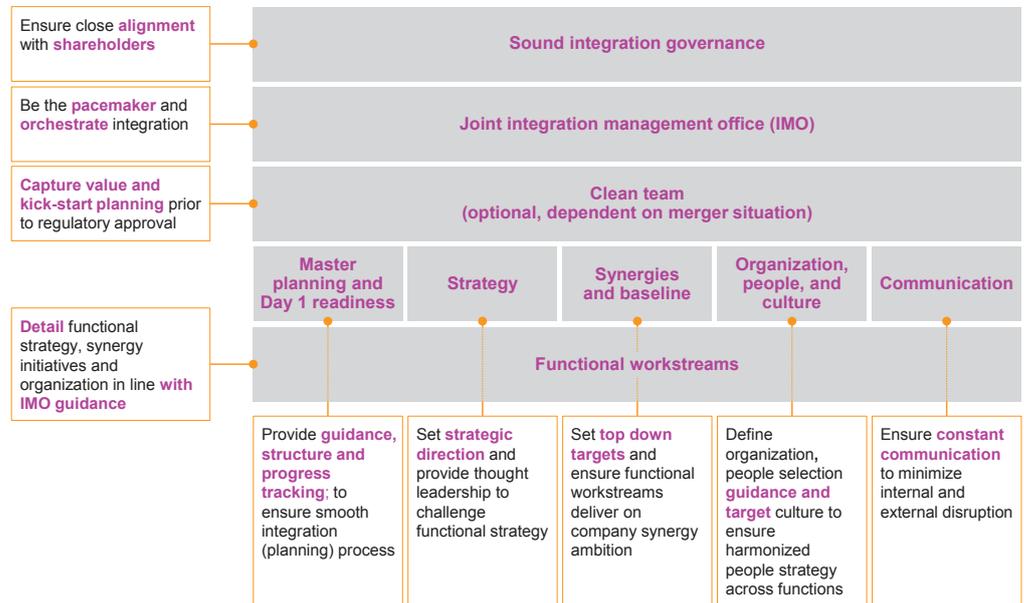
Consolidation can only succeed in certain situations and under certain circumstances. As a strategy, it must be value-driven to begin with, and disciplined execution is of critical importance. Value gained can be easily lost in badly managed post-merger management processes. Promising high-profile telecommunications mergers over the past decade have sometimes lost or failed to improve earnings margins.

To capture both cost and revenue synergy, a clear strategic rationale and systematic processes are required. A joint integration management office should be established, to provide guidance and structure to foster smooth integration. Targets should be set top-down, and progress on them tracked; guidance provided by integration management should be supported by organizational and functional initiatives, as well as clear communications (Exhibit 30). While by no means simple to achieve, these processes are the building blocks that enable consolidation to deliver on the potential performance advantages to scale.

Exhibit 30

The critical processes for unlocking value from integration

Best-practice building blocks for successful integration



4d. New operating models

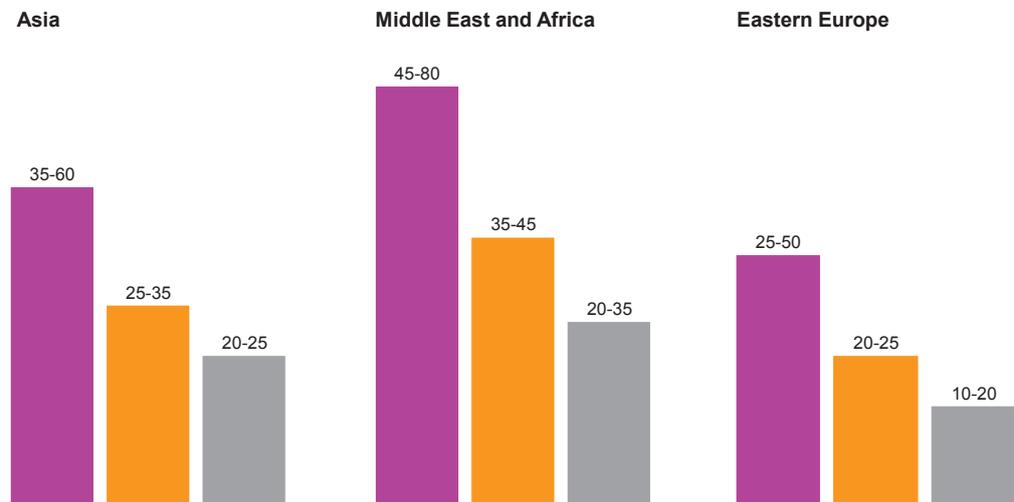
MEA telecommunications companies have higher operating costs than peers in other emerging market. On average, network operating expenditure per site is 15 percent higher in MEA than it is in Asia and 45 percent higher than in Eastern Europe. For top-quartile MEA operators, the difference is even greater, at 45 percent and 60 percent respectively. For operators in Africa, the lag is greatest, with a gap of 25 percent versus Asian operators and 60 percent versus East European operators (Exhibit 31).

Exhibit 31

Operator efficiency is lower in the Middle East and Africa, and has a higher variance than in Asia or Eastern Europe

Network opex per site over 1 year
USD thousands

■ Bottom quartile ■ Median ■ Best quartile



SOURCE: McKinsey ONE Telecom database

MEA operators also compare unfavorably with their emerging-markets peers on key indicators of productivity, with a 30 to 60 percent performance gap in sites per network, full-time equivalents (FTE), field force interventions per day, or incident productivity at network operating centers. Tower-company and network-sharing deals, furthermore, are significantly less frequent in MEA than in the rest of the world. Today, around 68 percent of towers are owned by tower companies globally, while the share is around 20 percent in Africa and below 10 percent in the Middle East. Similarly, MEA saw fewer deals for network-managed services than other regions.

Where do we go from here?

In the long term, after market growth becomes more saturated, operator profitability will increasingly depend on unit production costs for offered services. These costs will be determined by the efficiency of the operating model and the economies of scale operators are able to achieve. The importance of data will bring additional pressures as will the new breed of players – activist investors, which have already begun to change the game in Europe.

Developing sustainable cost efficiency requires transforming the operating model. Three transformative models can be considered for adoption, depending on size and position of the operator: a) *The value-focused local model*, b) *The cross-border scale model*, and c) *The partnership web model* (Exhibit 32).

Exhibit 32

To develop their competitive position, operators will need to move to one of several transformative operating models, according to their situation

A Value-focused local model

- The value-focused local model concentrates on transformation in four areas: customer value, processes, network and IT, and organization and governance
- Depending on the starting position and improvement aspiration, MEA operators would introduce the model gradually, starting with easier initiatives, such as procurement
- After realizing early successes, operators would then move to more complex initiatives, such as E2E lean process redesign, smart capital expenditure, Edge digitization, and network transformation

B Cross-border scale model

- This model is designed for telecommunications groups with operating companies in several countries in the MEA region
- The focus of the model is on leveraging the scale and expertise of the entire group
- It is a regional operating model, defined by its use of shared service centers and competence centers
- A key requirement is the clear definition and delineation of regional and local roles

C Partnership web model

- This model is designed for operators active in a single market or a limited number of markets
- The focus is on internal development of core strategic capabilities, including marketing, sales, and customer analytics
- In the partnership web model, other capabilities, such as support, IT, and new technology, are supplied collaboratively, through strategic partnerships with vendors, turnkey outsourcing, asset-sharing with competitors, and other relationships

SOURCE: McKinsey analysis

A. Value-focused local model

In this model, the focus is on transforming competitiveness in four dimensions: value focus, digital transformation, network and IT, and organization and governance (Exhibit 33).

Exhibit 33

“Value-focused local model” consists of a menu with radical levers across the whole operator

NOT EXHAUSTIVE

Value focus		<ul style="list-style-type: none"> ▪ Granular segmentation and micromarket focus, tailoring offers and pricing ▪ Maximizing customer value through basket of products ▪ Smart capital expenditure (tracking of investment patterns)
Digital transformation		<ul style="list-style-type: none"> ▪ Maximizing value from customer interactions ▪ Process digitization ▪ Customer journey transformation
Network and IT		<ul style="list-style-type: none"> ▪ Network virtualization, including network function virtualization and software-defined networks ▪ Network outsourcing (including field force) ▪ IT outsourcing (including asset management sourcing)
Organization and governance		<ul style="list-style-type: none"> ▪ Strong linkages between executive compensation and performance ▪ All decisions making is centralized ▪ Weekly steering cycles from the top

SOURCE: McKinsey analysis

- **Value, not volume.** Customer lifetime value is brought into focus and maximized with targeted upselling, a product basket enlarged with related products (adjacencies), and pricing based on value of service. Where possible, micromarket competitiveness should be pursued and marketing and distribution costs should be trimmed to reflect expected customer value. In this customer-value-focused approach, operators prioritize investments by market and market segment to achieve high value first rather than high volume first.
- **Digital transformation.** Digitization begins with the digitization of customer journeys to reduce costs and enhance the customer experience. By deploying advanced tools, operators can improve efficiency while maximizing impact from customer touch points. The investment in automation will not only reduce run-rate costs, it will also increase the accuracy of every operation.

- **Network and IT.** At the core of operator competitiveness, these capabilities can be upgraded in targeted ways to maximize value. Network planning and upgrades can thus follow specific customer journeys within prioritized segments, as opposed to delivering everything to everyone. The approach is designed to get the most out of capital expenditure, as capital turns are a very important differentiator of operator performance in MEA (see chapter 2). IT development should be pursued to optimize cost and platform flexibility to shorten time to market; the development path could easily involve outsourcing.
- **Organization and governance.** Steps to take in this area include linking executive compensation to performance and shareholder value creation, centralization of decision making, making the organization leaner by eliminating intermediate managerial layers, and steering the company in weekly cycles.

These sets of actions should enable operators to maximize capital turns and margin, because the approach roots investment and business decisions in target customer segments and their value. At the same time, this concept emphasizes investment in advanced analytics and delivery tools to automate and standardize processes, making them more accurate, to provide a fact base for decision making.

Procurement synergies: a good place to start

Optimal procurement is essential to achieving the cost performance on which the value-focused local operating model relies. Procurement optimization programs conducted at leading global companies have typically resulted in savings of 10 to 30 percent. These programs achieved cost savings methodically, in an approach based on two kinds of action – *traditional* commercial measures on the one hand, and deeper *scientific*, noncommercial measures on the other. This scientific approach is still nascent in MEA: many companies have begun to implement programs, but the potential of better procurement has barely been tapped.

Traditional

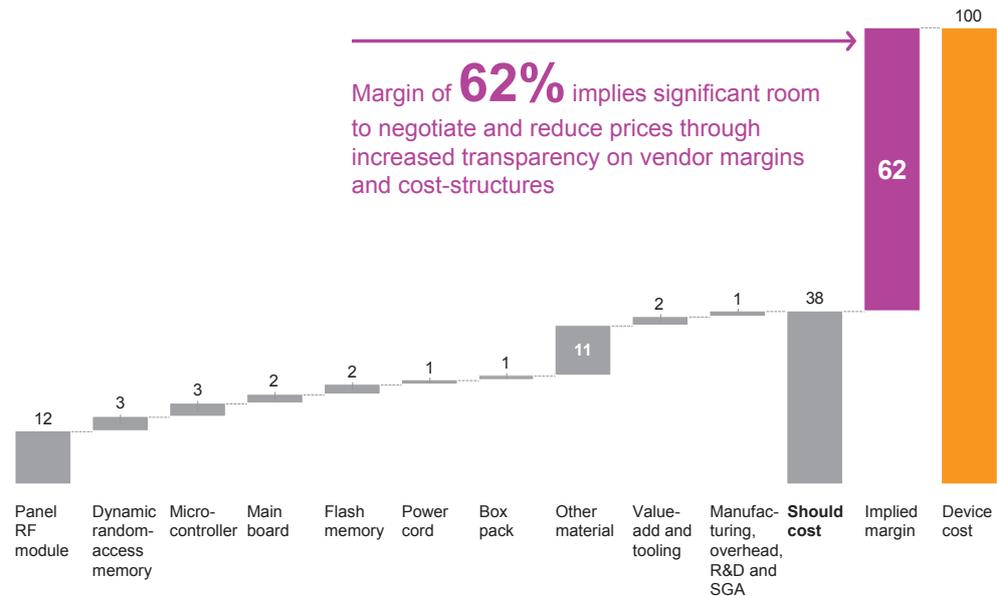
The *traditional* commercial measures are the more traditional component of the approach. Companies review and refine their supply categories, for example, finding savings by taking such actions as bundling with the same vendor or consolidating supply across business units. Vendor relationships and commitments can be tested and negotiations can be analyzed and more favorable timings and formats adopted. The array of traditional commercial measures to optimize procurement are focused on achieving better pricing models and improving the circumstances of negotiation and the choice of vendors. Better terms can also be attained by finding new vendors or changing relationships with existing vendors through partnership or shopping programs. The level of competition within categories can be raised and approaches to dismantle conditioned purchase agreements can be explored through multivendor alternatives. Historically, operators have been effective at doing this and generally pay good prices for what they buy.

Exhibit 34

A “teardown lab” estimates the probable cost of equipment or services (“should cost”) to reveal the implied margin of the supplier

Customer-premises equipment (router) example

“Should-cost” breakdown of model, indexed



SOURCE: McKinsey analysis

Scientific

The greater part of procurement savings – up to 80 percent of the total – lies beyond the pricing lever, however. Here, leading companies have blazed new pathways to lower-cost procurement by applying *scientific*, noncommercial measures. Approach such as “Should cost” can be explored to define the actual price of the item or service procured. Demand can be analyzed for potential reduction, elimination, or substitution using more efficient alternative products and technologies. Historically, technical specifications were designed solely by the end user, or in certain cases even by the vendor; today, leading procurement functions are able to challenge and contribute to the design of the technical aspects to ensure cost effectiveness across all spend categories. Specifications can be revisited to achieve simplified and standardized (for example, archetypical) requirements. A typical example of the “Should cost” approach can be seen in Exhibit 34, where an operator deconstructed the cost of customer premises equipment to disclose supplier margin.

Procurement initiatives are often the easiest cost-performance initiatives to implement. In introducing the value-focused local model, operators will likely want to start with procurement to capture early savings and build change momentum. However, the key to maximized improvement in procurement is in going beyond pricing-focused measures to deeper, more strategic moves.

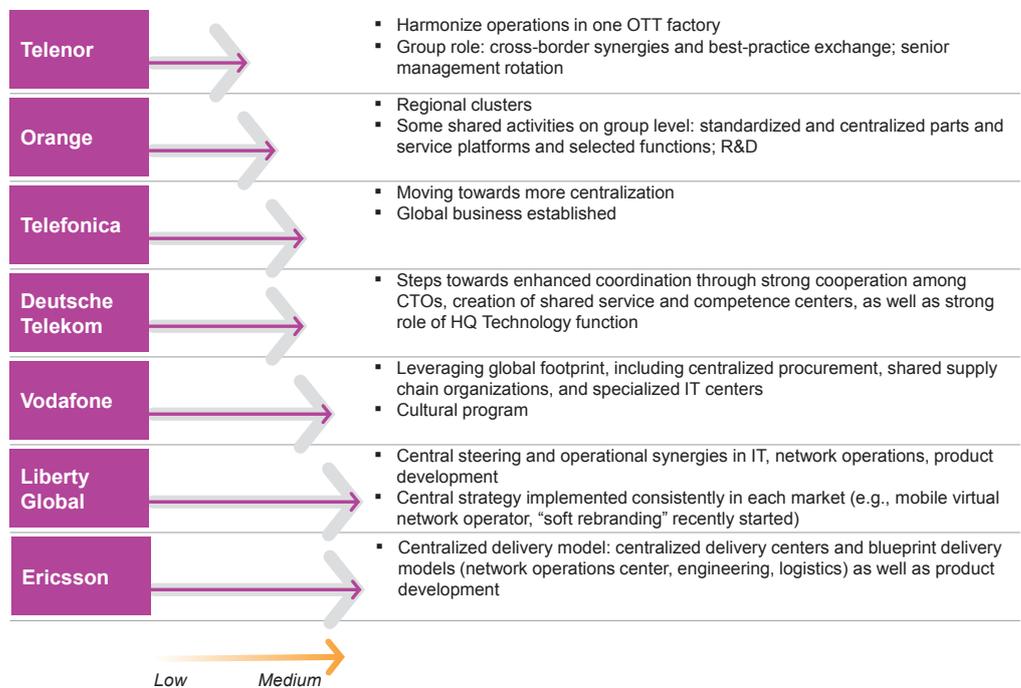
B. Cross-border scale model

Telecommunications groups with operating companies in more than one MEA country can gain significant competitive advantage by shifting to a model that utilizes the potential of their group structure. Many multinational operators and managed-services providers are already moving towards cross-border operating models, but at different rates and levels of collaboration (Exhibit 35).

Exhibit 35

Telecommunications operators and service providers are moving towards more integrated cross-border regional or global models

Telecommunications operators and service providers with different levels of operation



A well-functioning cross-border model is usually based on several kinds of collaborative activities. These include: *knowledge exchange and information sharing* (about available expertise in particular operating companies, for example), *collaborative projects* in which several operating companies participate (such as productivity benchmarking), *competence centers and cooperation teams* (for L3 expertise, for example, or for repetitive projects such as 4G rollout and frequency auctions), and *centralized operations in a single delivery factory or shared service centers* (for example, one global network operations center, shared service management center, centralized technology procurement, or shared data centers). In MEA, where the competition for talent is especially intense, efficiency gains can be attained by using today's technology to centralize unique analytical capabilities. Customer lifetime value or campaign management may be defined centrally, based on detailed local data that may be accessed remotely and analyzed centrally. Perfecting the analytical process by employing top talent can create an edge over fragmented competitors.

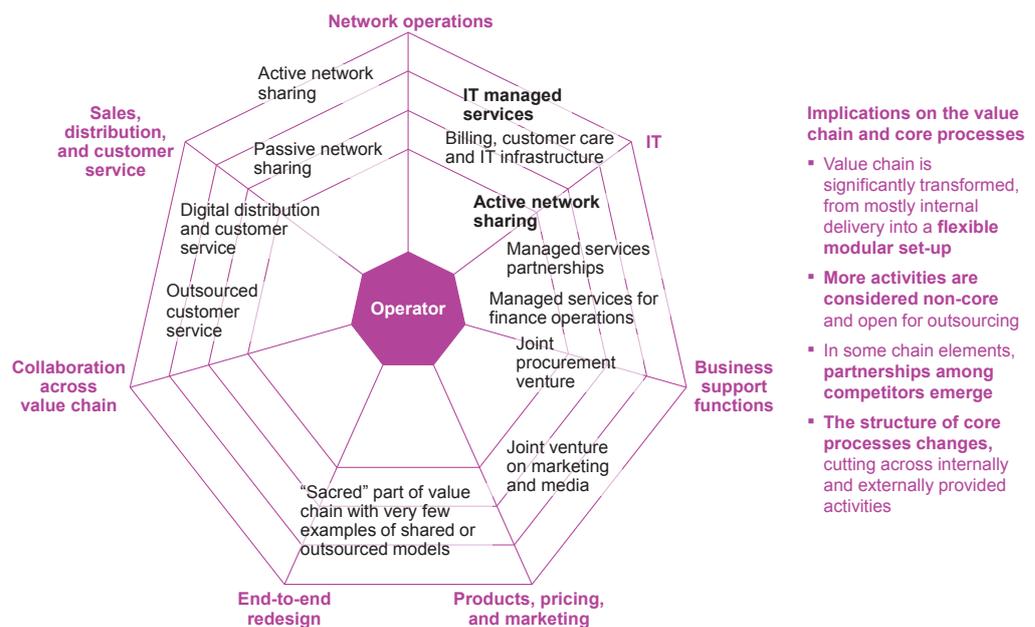
The cross-border model can be adopted only by groups with governance models centered on a strong HQ role, transparent performance management, and a strong analytical toolkit supported by modern IT systems. The model should be based on clear decisions about the activities to centralize, where the centers should be located (HQ, operating company, virtually, or with an outsourcer), and the best collaboration and governance models.

C. Partnership web model

Operators in one market or a few local markets may find a partnership web model attractive. The model increases efficiencies through a focus on internal development only of core strategic capabilities, such as marketing, customer value management, and an advanced-analytics engine. For all remaining capabilities, the model uses strategic partnerships, including vendor relationships, turnkey outsourcing, asset sharing with competitors, and other collaborations (Exhibit 36).

Exhibit 36

The partnership web model uses a modular value-chain structure: core value-chain modules are kept in-house while operators deploy strategic partnerships for all other modules



SOURCE: McKinsey analysis

The partnership web model has a much higher share of variable costs, fewer internal employees, and is more flexible to fluctuating volumes. Similarly modular models are already used by operators in Asia. The cost and asset base become more flexible, enabling a better competitive stance outside of strategic capabilities.

4e. Digitization

Already well-established in banking and financial services, digital customer service – so-called e-care – is now making inroads in other industries. These digital services are increasingly demanded by customers and make sense from a financial perspective too: e-care has the potential to significantly lower the cost of customer service operations while increasing customer satisfaction.

Our research shows that 76 percent of telecommunications customers are satisfied with a customer service journey that is fully digital, compared with 57 percent satisfaction for interactions through traditional channels. When you consider that migration to e-care can, in our experience, reduce call volumes and operating expenses by 25 to 30 percent, its benefits seem obvious.

Based on our research and work in e-care transformation, we have identified six stages of a successful e-care transformation:

- 1. Figure out what's broken.** Take a complete inventory of your current e-care program, developing a fact base from the perspective of your consumers – which digital service touch points and functionalities you offer and how you offer them. Often, you'll find that problems are straightforward.
- 2. Build an e-care contact strategy map.** It is easier to plan a journey when you know where you want to go. By developing a granular map that shows which customer requests can be addressed at which touch points, a company can see where digital functionality should be developed. In this step, it is also crucial to identify which types of service requests should not be pushed to digital too aggressively, or at all, to avoid jeopardizing cross-selling opportunities. To prevent revenue losses, some digital touch points should also enable service-to-sales functionality.
- 3. Build a dashboard.** Being able to measure customer experience by channel and customer migration between channels is the only way to ensure control and continuous improvement.
- 4. Set goals.** The first target numbers that should be set are the level of self-service use and call center operational savings. Here, too, targets should be granular, defined at the level of individual reasons for contact.
- 5. Deploy a mix of “pull” and “push” strategies to make customers go online.** To speed up the adoption of e-care services, customers must be “pulled” online with the promise that doing so will make it easier to accomplish particular tasks.
- 6. Synchronize the change effort.** Appoint a cross-company committee to lead all project management of digital customer service activities, align performance management, improve cross-functional communication and alignment on digital projects, and set up an advanced data model to track e-care key performance indicators across the organization.

Digital cannot simply be bolted to traditional customer service channels. The transition to e-care is a one- to two-year multistage project that must have substantial C-suite support at the outset. Nevertheless, we believe that adopting e-care is worth the effort and that virtually every consumer-facing industry that has high customer relationship needs can benefit from it.

Yet while the benefits of digitizing customer care are significant, so is the challenge of developing and implementing a profitable e-care approach. Our latest research⁹ and client work confirms the extent of these difficulties: a lack of strategic and detailed implementation programs means not only are companies missing growth opportunities, but they are failing to see potential threats to established revenue. In our experience, only by understanding the root causes of customer behavior can companies develop a coherent program to migrate them to digital care channels.

Root causes of slow migration to e-care

Companies tend to concentrate their e-care efforts in three channels: apps, social networks, and Web sites (Exhibit 37). However, despite the impressive growth in the use of social media for customer care (for example, the use of Twitter to connect with brands has increased 2.5 times in the past two years¹⁰), customers have been slow to adopt live digital service channels. For instance, while about 50 percent of companies offer live chat and e-forum support, fewer than 2 percent of customers use these services. Instead, customers choose channels closely tied to just a handful of specific functions. A majority use Web and mobile apps for billing and payments, for example, but prefer social networks – which they spend four hours on each day¹¹ – and forums for information on fees and services.

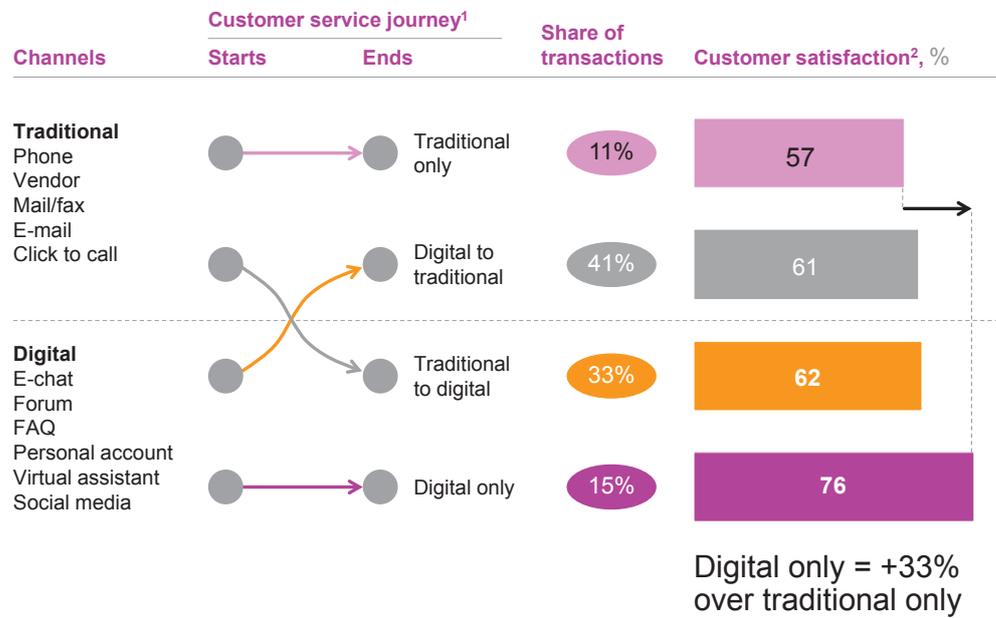
⁹ We interviewed more than 70 digital experts and industry leaders, surveyed more than 4,000 Western European telecommunications customers, and analyzed 200 key performance indicators across all digital and traditional remote channels. While our analysis focused on the telecommunications sector, the insights have broad applications across many service-oriented industries.

¹⁰ “Building your brand’s social media muscle,” McKinsey research, 2015.

¹¹ Ibid.

Exhibit 37

The more digital the journey, the higher the satisfaction



¹ Telecom example, Western Europe; 4 service journeys were identified based on an analysis of 11 touchpoints spanning traditional and digital channels. For traditional-to-digital journeys (and vice versa), the first channel switch was used to allocate the journey
² Respondents who ranked their satisfaction in the top 3 on a 7-point scale, where 7 = most satisfied

The bottom line is that despite obvious advantages, an average of only about 3 percent of customers use a digital channel each month for service – a rate of about half that of call centers. This represents a massive untapped opportunity for companies to convert customers from higher-touch, more expensive channels such as call centers. We have identified four primary reasons why customers are not adopting e-care more enthusiastically:

1. Poor digital experience

As many as 70 percent of all remote customer care interactions in the telecommunications sector are digital. This should be good news as our research found that e-care consumers are more satisfied than those using traditional channels for customer service, and top performing companies are able to realize savings thanks to a reduction in call volumes. Yet some companies moving to digital actually experience call volume *increases*, which results in *higher* costs. That is because the experience in most e-care channels does not match high customer expectations. And when customers find that their issues are not resolved through digital channels, what do they do? Pick up the phone.

Despite the premium customers place on a good digital experience, we have found that customer satisfaction scores for e-care are typically almost 10 percent lower than for traditional channels. On our app and Web site assessment, most operators were adequate when it came to “simplicity” (clear design and minimal required clicks), weak in terms

of “convenience” (a single point of contact, completeness of information, and ease of access), and poor with regard to “interactivity” (links to alternative digital channels such as e-forums, videos, and chat services). Indeed, this lack of clear or useful digital backup options leaves many customers with little choice but to turn to a call center. In addition, increased call volume can be attributed to the fact that customers tend to use digital two to three times as much as traditional channels, which increases the likelihood they will turn to traditional channels if their digital experience isn’t satisfactory. At one company, for example, we found that about 40 percent of clients using e-care eventually turned to the call center. This “boomerang effect” obviously diminishes the benefits of moving customers to digital channels.

2. Unclear migration strategies

Many companies simply aren’t successfully migrating their customers to digital channels. Our research found that fewer than 20 percent have a migration strategy with sufficient detail, such as prescribed actions for following up with targeted clients who have reason to migrate to digital channels. Almost 60 percent have little or no migration budget and apply no or very basic migration initiatives. They do not have a clear and segmented strategy on which clients to target or how to clearly communicate their digital value proposition. They often provide insufficient incentives for switching and do not monitor migration performance or even have specific people who are responsible (or accountable) for migrating customers to digital channels.

3. Fear of losing revenue

Many companies are apprehensive about migrating customers because they are hesitant to put revenue at risk. This is because, on average, operators see upsell or cross-sell rates that are almost nine times higher across traditional remote care channels (such as call center and interactive voice response) than across digital channels. Yet our research also shows that companies that perform well at converting service calls into sales are less digitally advanced. Some companies are starting to explore how to capture digital service-to-sales through innovative pilots such as proactive text or video chat. This is clearly an untapped opportunity that could become a significant source of revenue given the higher frequency of contact in digital compared with traditional channels.

4. Haphazard organization and operations

Across the seven dimensions we analyzed, the overwhelming majority of telecommunications companies demonstrated wide variability in performance and operating models – even within the same companies. Less than 30 percent of the companies we examined have a dedicated e-care team with direct reporting lines to top management or peer level to other remote care units, only 40 percent have clear digital targets shared across different units, and less than 15 percent are capable of tracking customer journeys across digital channels and their effectiveness in resolving customer issues.

Making e-care work

It's still the early days for e-care. Yet leaders who can make the transition to offering compelling digital care will not only please their customers, but will unlock new growth. Based on our survey results and our interviews with numerous chief digital officers, we identified three critical factors for making e-care work.

First, *make targeted investments*. Telecommunications companies tend to favor an “everything, everywhere” approach to customer care to cover bases and stay on top of new trends. Top performing companies are more selective: they undertake detailed analysis to find out which calls lead to upsell opportunities (and should remain in traditional channels) and which ones don't, and are therefore candidates for migration to digital channels. They are also clear about which channels customers prefer for each specific reason for contact. This sort of insight informs a more selective, targeted investment approach for specific channels based on specific use cases.

Second, *continuously optimize the multichannel experience*. Top performers invest in designing and delivering good multichannel customer experience. They implement detailed metrics that allow them to continuously monitor customers' cross-channel journeys to identify pain points and opportunities. And they develop processes so that decisions can be made quickly and provide guidelines to the front line so it can react rapidly to constantly enhance the overall experience.

Finally, *support a detailed strategy*. The most successful customer migrations to e-care channels start with clear top management support and a clearly defined strategy at the executive level, and are supported with a specific and coherent set of actions based on well-defined use cases to implement the change. They start with a clear focus on some channels and functionalities by channel and a well-defined budget to execute the IT development and migration. They also prioritize and tailor their migration plans to specific and well-defined customer segments with a set of “pull” (such as targeted e-mails with offers) and “push” (such as providing discounts to go online) actions with enough detail that there is no confusion about who is supposed to do what. To deliver on these activities, winning companies often put in place a single, cross-functional team with responsibility and authority for managing all aspects of the program, from marketing communications to internal process redesign to IT road map development, have agile processes in place to coordinate efforts within the company, and set digital targets shared across the whole company.

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