Metrics transformation in telecommunications

Meeting the challenges of communicating performance in a shifting industry landscape
Legacy metrics cannot capture today's growth and profitability.

Strong industry growth fuels capex concerns.

An uncertain outlook ...

Why change – and why now?

Customer metrics need to reflect new use cases.

Tackling the pros and cons of EBITDA.

The business case for new financial metrics.

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The factors challenging legacy metrics.

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Metrics transformation in telecommunications

Why change – and why now?

Across the global telecommunications industry, the fast-changing technological, competitive and customer environment is calling for a renewed look at the metrics operators use to measure and report their financial performance.

The changes impacting the industry are pervasive and profound, and they occur in several dimensions. Operators’ profitability remains under significant pressure, driven by rising customer sophistication and demand, ongoing price pressures – exacerbated by intensifying competition from over-the-top (OTT) providers – and regulatory pressures on core service areas.

And as traditional markets become saturated, the business case for investment by operators is no longer driven by net additions and rising penetration. Many markets are now hyper-penetrated, while churn remains low despite intense pricing pressure. Yet long-term capex requirements remain high. And future growth opportunities increasingly involve new types of customers, connectivity, use cases and profitability profiles – with even the traditional definitions of “customer” or “user” coming under scrutiny.

Change is also under way on the investor side as shareholders and analysts increasingly look for new sector growth stories in the wake of infrastructure upgrades. Meanwhile, operators themselves are squaring up to the challenge of improving their business intelligence capabilities as a catalyst for better decision-making. This in turn requires a more robust set of internal metrics that capitalizes on the wealth of product and customer data they have at their disposal.

New metrics for a new environment

These combined fundamental shifts mean that new metrics are needed to measure the industry’s health and performance.

Robust and relevant operational and financial metrics are critical to support informed decision-making across the industry, maintain the credibility and relevance of operators’ reporting and forecasts, and sustain investors’ confidence.

If the metrics used by the industry are to continue to play these roles, it is vital that they keep pace with changing market conditions, business models and service offerings. It is also important to maintain global consistency in these new and evolving metrics as operators widen their service propositions and as investors and regulators demand new insights into addressable markets and end users.
The global telecoms sector is outpacing the market's previous assumptions on its growth rate because of soaring usage of data services. Yet concerns persist over the costs required to support this exploding demand for data.

The current wave of growth in mobile data services and traffic is driving connections and handset penetration ever higher. As the long tail of emerging market users gets connected, the number of mobile connections is projected to surpass the global human population in 2014 (see Figure 1). Demand for data is being further increased by trends such as consumers aggregating devices and embedded SIM and machine-to-machine (M2M) offerings.

At the same time, global smartphone shipments are continuing to ramp up impressively (see Figure 2). However, minutes of use (MoU) is flattening in some markets as consumers' usage shifts toward data and away from traditional services such as voice, despite a rising proportion of packages offering unlimited minutes and text messages.

Figure 1. Global population and mobile connections

Figure 2. Annual smartphone shipments
Investors’ view of the telecoms sector remains fundamentally ambivalent, reflecting uncertainty over the trade-off between the costs and value of new growth areas. A further factor is the difficulty of assessing operators’ future capex commitments as mobile traffic growth outpaces mobile data revenue growth (see Figure 3).

Figure 3. Global mobile data revenue and traffic growth


... threatens the sector’s defensive qualities

This uncertainty means the capex guidance for many operators remains conservative, despite the strongly rising demand for mobile data. A subdued perception of growth potential, coupled with macroeconomic pressures, has seen telecoms stocks characterized as a defensive play offering strong cash flows. Yet even this view of the industry is now under pressure in the wake of dividend cuts announced by leading players.

A comparison of major telcos’ share performance over the past five years highlights defensive qualities giving way to underperformance in 2012 (see Figure 4). Overall, the industry’s performance has been resilient but unexciting over this period – and it is clear that ongoing macroeconomic and structural pressures remain.

Figure 4. Telecoms stocks’ performance (rebased)

Source: *Dow Jones and MSCI from Capital IQ, Thomson ONE, accessed January 2012

First economic crisis – telecoms decline less pronounced than other sectors as they are seen as safe-haven stocks

Telecoms stocks recover, but rebound underperforms other sectors, reflecting structural sector weakness, e.g., regulation, price competition

European telecoms underperform other sectors in 2012 due to macroeconomic pressures, particularly in mobile, and concerns over dividend sustainability

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Strong data growth intensifies pressure on margins

As operators seek to move beyond a defensive image, they face a significant challenge when emphasizing growth opportunities: rapid growth in data traffic is being accompanied by lower margins. As a result, investors are demanding more details and insight into the industry’s margin mix and development.

The pressure on margins looks set to increase as data services eat into the higher margins from legacy services such as voice and SMS. The typical telco’s overall margin was estimated at around 45% to 50% in 2011. However, given the growing contribution by data services to the revenue mix, operators may well see their overall margins fall below 45% by 2015 (see Figure 5). Even so, telecommunications remains a highly profitable and cash-generative business compared with other industry sectors.

The need for greater insights at the customer level

As operators face up to this pressure on margins, they also need to address a shortage of insight into customers. Traditionally, operators have focused on retaining loyalty rather than monetizing demand. As a result, an array of anti-churn strategies — fixed broadband, free upgrades, flat-rate mobile data, multi-play packages — has enabled consumers to use ever-higher amounts of data at little incremental cost (see Figure 6), while also encouraging them to regard minutes and bandwidth as commodities with relatively little value in themselves.

Today this commoditized value perception is becoming a major issue for operators as new consumer service areas are exploited by entrants with very different business models, such as over-the-top TV and advertising-supported apps. Even products that were previously insulated from cross-industry competition, such as SMS, are coming under pressure from new free services such as mobile instant messaging.
Smartphone take-up

A double-edged sword

In combination, these customer and service dynamics mean that rising take-up of smartphones brings mixed implications for operators. While rapidly increasing smartphone penetration increases operators’ available customer base, it also comes at a cost, by depressing margins in the near term due to subsidy effects and adding further to the explosion in data traffic on their networks.

These conflicting impacts mean investors are demanding more detail on operators’ growth stories. EBITDA margins are being scrutinized especially closely for the effects of smartphone take-up, which vary widely depending on the handset vendor and the mobile operating system being used. The launch of high-end smartphones across leading mobile operators is projected to have led to margin pressure for operators worldwide in 4Q12 and 1Q13. Meanwhile, it’s more difficult to forecast smartphone take-up reliably because of the volatility of handset prices, with some vendors looking to win market share by slashing prices while device subsidy models continue to evolve.

Figure 7 compares quarterly smartphone activations and wireless EBITDA margins between Q1 2011 and Q1 2012 for the leading four US mobile operators. The inverse relationship between the two is clear, and investors are alert to these impacts.

Against this background, operators need to communicate additional detail around smartphone take-up and correlate this with information on both ARPU and Subscriber acquisition costs/Subscriber retention costs. This will enable investors to get a better understanding of the longer-term impacts on profitability associated with the rising usage of mobile data services. Looking ahead, subscriber upselling costs could be considered as part of a new metric that provides greater granularity on the take-up of 4G devices and service plans.
Legacy metrics cannot capture today’s growth and profitability

In light of the profound industry changes and emerging dynamics that we have described, it’s increasingly clear that the legacy performance metrics commonly used across the industry – such as net additional connections and ARPU – are no longer sufficient to provide management and investors with a clear view of operators’ growth and profitability.

Net additions have declining relevance as the number of new subscribers diminishes (see Figure 8). Rather than chasing new subscribers, operators are now more focused on delivering improved service levels and offering new services to existing users.

At the same time, the evolution of ARPU is well-understood, with a downward trend in ARPU now established in nearly all markets worldwide (see Figure 9). This decline over time reflects the fact that the initial users of mobile services are generally more affluent – and relatively higher-spending – early adopters. Then the long tail of less affluent adopters typically dilutes the high ARPs those consumers produced.

The inclusion of inactive SIMs in the user figures can also distort ARPU, while operators also define what constitutes data ARPU in different ways. And as well as being subject to structural trends in the customer/subscriber base, ARPU is becoming less relevant due to the growing trend for each customer to own multiple SIMs. As device and SIM ownership increases, operators are exploring new ways of capturing and expressing customer spend, such as the average revenue per account (ARPA).

Also, many new connections are now being generated by multi-SIM consumers, and by enterprise and machine-to-machine connections, blurring what a net addition means. These new types of connectivity also have very different usage, revenue and margin profiles compared with the legacy customer base. Operators complicate the picture further by measuring subscriber churn in varying ways, making it harder to compare reported performance.

Figure 8. Net mobile connection additions by region


Figure 9. Monthly ARPU by region

Case study of metrics evolution

The move toward per-minute metrics in India

The failure of legacy metrics to adequately capture operators’ performance is fueling a drive to develop new metrics more suited to the new environment. There are already examples of such moves: the rise of per-minute metrics in India and other emerging markets has seen average revenue per minute (ARPM) help validate the effectiveness of low-cost telecoms operating models.

The business model used by Indian mobile operators, which treats airtime as a perishable commodity and seeks to maximize network utilization, has enabled them to charge one of the lowest tariffs globally. Its approach reflects a more general move toward treating telecoms networks as utilities, where success is defined by maximizing the consumption of minutes, rather than by protecting ARPU.

Figure 10. The “minute factory” mobile business model

As operators adopt a more utilities-based approach, as exemplified by “minute factories,” ARPM is providing a strong complement to ARPU. The ARPM metric is especially useful for prepaid-centric emerging markets, where ARPUs are fundamentally lower than in mature countries and ARPU dilution is a fact of life, given that late adopters are typically less affluent users. Meanwhile, voice itself remains a dominant revenue stream.

Operators in China as well as India have been reporting ARPMs for the past few years as the balance of net additions has shifted toward lower-income groups in rural areas. More recently, several telcos in other markets across the Asia-Pacific region have also adopted the metric, in addition to reporting traditional ARPU figures.

Figure 11. Indian mobile operator ARPM development

Figure 10 shows a schematic of the “minutes factory” model, with each major operational component either outsourced or shared, including sharing of risks, costs, revenues and even infrastructure where appropriate. Many operators in the Indian market have adopted this type of model, since it offers the benefits of faster network deployment, a first-mover advantage in telecom outsourcing, lower operating costs resulting in improved margins, and an ability to focus more attention on customer-facing activities. Figure 11 illustrates the relative movements in Indian operators’ ARPM measures between Q1 2011 and Q3 2012.
Customer metrics need to reflect new use cases

Alongside the development and usage of new metrics, legacy KPIs must also adapt and evolve to reflect new concepts of connectivity, service adoption and usage, and new customer definitions and behaviors. In a data-centric world, operators need to generate new insights from a wider set of metrics if they are to keep pace with new investor and customer demands.

Most of the telecoms industry’s legacy metrics were initially designed to communicate the take-up of core services — a concept that increasingly misses the point. For example, legacy penetration rates fail to communicate fully the addressable market for new services, and customer-level usage metrics such as minutes of use (MoU) often fail to delineate the impact and effect of bundle and flat-rate packages.

The underlying shift is that the market has evolved from a phase of mobile voice growth to one where voice is mature and mobile data is growing. This changed environment demands a new set of metrics, as shown in Figure 12.

Figure 12. Evolution of KPIs in mobile data

<table>
<thead>
<tr>
<th>Mobile voice growth</th>
<th>Voice maturity, mobile data growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network coverage</td>
<td>SAC/SRC</td>
</tr>
<tr>
<td>Network additions</td>
<td>Churn</td>
</tr>
<tr>
<td>Market penetration</td>
<td>Data share of revenue</td>
</tr>
<tr>
<td>Subscriber market share</td>
<td>Mobile internet page hits</td>
</tr>
<tr>
<td>MoU</td>
<td>Revenue market share</td>
</tr>
<tr>
<td>ARPU</td>
<td>3G handset take-up</td>
</tr>
<tr>
<td>Pre- and post-paid split</td>
<td>On-portal visitors and traffic</td>
</tr>
</tbody>
</table>

Source: EY analysis

As the industry adapts to this new reality, several gaps in the current portfolio of metrics need to be filled. One is that data service metrics such as megabytes per user are lacking at the customer level, as are metrics for new growth segments such as mobile apps and advertising. More generally, the concept of the “user” itself needs to be revisited in a landscape of multiple devices per person and fast-growing numbers of M2M connections.

RGUs provide more meaningful insights

As the use cases for telecoms infrastructure expand and markets approach saturation, it is becoming vital for operators to report the number of customers taking up more than one service, or revenue-generating unit (RGU) per subscription.

Historically, cable providers have successfully used RGUs to communicate the expansion of their product scope, which in turn generates incremental spending and greater customer stickiness — resulting in higher and more stable revenues. Figure 13 shows an RGU-based analysis of rising multi-play take-up in the European cable market between 2009 and 2011. Drawing on this experience, some telecoms operators are already adopting and reporting on RGU metrics to capture multi-play and multi-screen take-up. This in turn provides a clearer picture of how successfully they are cross- and up-selling their services and how many services their average customer is taking as a result.
Overhauling penetration and coverage indicators

Embracing new concepts of connectivity also involves reconsidering penetration metrics. As customers aggregate different services within the home, household penetration and coverage metrics are becoming more important. For their part, regulators require greater insight on the reach of new network technologies such as fiber-to-the-home (FTTH) and LTE, which can help identify areas lacking in coverage. This is vital in an era where governments themselves see the telecommunications infrastructure as a platform for social inclusion and national competitiveness.

Figure 14 expands on Figure 12 to show the key metrics that will be required in the telecoms industry’s future era of mobile data maturity and the industry characteristics that will drive the need for these metrics.

Improved internal metrics also have a vital role to play

Moreover, additional internal metrics can help telcos improve customer loyalty and value by providing a better understanding of customers’ quality of experience. Fresh insights into many areas can be gained by building new KPIs on aggregated data from various systems and processes, such as service configuration, billing and customer care.

In this way, operators can focus their investments better, focus their marketing strategies and ensure that customer pain points are identified earlier and solved more quickly. Such improvements can improve time-to-market in a number of areas, which is crucial if operators are to differentiate successfully in a wider competitive landscape.

Improvements in this area are not without their challenges. While operators retain data sets, such information is typically fragmented, with customer, product and asset data dispersed across a number of systems. Going forward, investments in data mining and warehousing solutions will allow operators to unlock the potential of this information, helping them to produce more robust and extensive internal metrics as a precursor to improved business intelligence. Greater levels of comfort with internal metrics will in turn spur more confident communications of performance levels externally.

Figure 14. Future evolution of KPIs in mobile data

<table>
<thead>
<tr>
<th>Mobile voice growth</th>
<th>Voice maturity, mobile data growth</th>
<th>Mobile data maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network coverage</td>
<td>SAC/SRC</td>
<td>Cost per bit transmitted</td>
</tr>
<tr>
<td>Subscribers</td>
<td>Churn</td>
<td>3G/4G network utilization</td>
</tr>
<tr>
<td>Penetration</td>
<td>Data share of revenue</td>
<td>Data usage per subscriber</td>
</tr>
<tr>
<td>Customer market share</td>
<td>Mobile internet page hits</td>
<td>M2M connections</td>
</tr>
<tr>
<td>MoU</td>
<td>Revenue market share</td>
<td>Mobile payment users</td>
</tr>
<tr>
<td>ARPU</td>
<td>3G handset take-up</td>
<td>Smartphone take-up</td>
</tr>
<tr>
<td>Pre- and post-paid split</td>
<td>On-portal visitors and traffic</td>
<td>App store revenue</td>
</tr>
</tbody>
</table>

Industry characteristics

<table>
<thead>
<tr>
<th>Mobile as premium product</th>
<th>Mobile as lifestyle product</th>
<th>Mobile as utility product</th>
</tr>
</thead>
<tbody>
<tr>
<td>High ARPU early adopters</td>
<td>Lower ARPU long tail of users</td>
<td>ARPU stabilization</td>
</tr>
<tr>
<td>Prepaid growth creates mass market</td>
<td>Stabilizing MOU and SMS usage</td>
<td>Increasing devices per customer</td>
</tr>
<tr>
<td>Low competition levels</td>
<td>High competition levels</td>
<td>Disruptive competition</td>
</tr>
<tr>
<td>High-margin legacy products</td>
<td>Margin pressure on legacy products</td>
<td>Margin pressure on all products</td>
</tr>
<tr>
<td>Voice and SMS</td>
<td>Walled garden mobile internet</td>
<td>High mobile data usage</td>
</tr>
</tbody>
</table>

Source: analysis

Source: “European cable survey,” Solon, June 2012
Tackling the pros and cons of EBITDA

Currently, the focus on core earnings remains at the heart of industry benchmarking through the continued widespread usage of EBITDA. However, this metric brings both advantages and drawbacks – and it is vital that operators take these pros and cons into account when planning their performance measurement and reporting strategies.

A throwback to an earlier industry phase ...

The usage of EBITDA in the industry dates back to the 1980s, when leveraged buyout (LBO) investors began to apply it to help them assess a telecoms business’s financial restructuring potential – for example, by calculating EBITDA-to-interest coverage ratios.

In the wake of the dot-com crash in 2001, operators started reporting EBITDA themselves. In the years that followed, as industry players recovered from the downturn, reporting in EBITDA allowed operators to highlight positive core profit trends.

... when growth was plentiful

Significantly, EBITDA was introduced at a time when the industry was in a high-growth phase. At that time, there was still massive potential for penetration growth in high-margin parts of the business, such as mobile voice.

However, in today’s more mature, converging industry, where growth opportunities lie in nascent TMT subsectors, EBITDA margins have less relevance, and meaningful cross-industry comparisons may require the addition of a new and different set of metrics.

EBITDA’s advantages ...

In determining what these metrics might be, it’s important to recognize that EBITDA does have some fundamental benefits. One is that it enables clearer peer comparisons – and comparisons between industries – by stripping out the impact of financing and accounting decisions, which can vary substantially year-on-year and between industry sectors.

Furthermore, EBITDA allows trends to be tracked over time and enables baseline profitability to be evaluated without capital expenses, making it preferable to net income as an indicator of a company’s ongoing operational strength. EBITDA is also widely used in other important ratios that are tracked and reported in the sector, for purposes such as valuations (EV/EBITDA) and gearing (net debt/EBITDA).

... and drawbacks

While EBITDA is a good metric for evaluating profitability, its insights fall short in an era when investors are closely tracking cash generation. This is one reason why operators began introducing cash flow metrics in 2008. Operating cash flow is a better measure of how much cash a company is generating, because it takes net income and adds back non-cash charges, while also including changes in working capital.
However, arguably the biggest drawback of EBITDA in the current industry environment is that it neglects capital expenditure. Figure 15 charts global industry EBITDA over a 10-year period against its varying annual capex commitment. While excluding the impact of capex may be valuable in certain contexts, such as the subscriber growth surge of the 1980s, today’s investors are inevitably wary of metrics that ignore capex, in an era when they are concerned about the profitability of new services. The free cash flow (FCF) metrics used by operators deduct capex from operating cash flow (OCF).

Figure 15. 10-year global EBITDA and capex development

Source: EY analysis via Capital IQ
The business case for new financial metrics

As the converging industry environment fosters the creation of new and more diverse business models, operators require new ways of tracking and communicating how and where they create value.

In mature markets, EBITDA margins have been under pressure for a decade – and many operators have sacrificed margin for market share, while cost-cutting approaches have also been aggressive. Meanwhile, improvements in return on invested capital (ROIC) were apparent in Asia-Pacific during mobile operators’ phase of rapid penetration growth between 2003 and 2007, while ROIC also improved in North America in 2009 following industry consolidation and the rollout of 3G.

Today, market analysts are increasingly tracking both ROIC and return on capital employed (ROCE). These measures provide a more accurate picture of an operator’s performance and ultimately the returns on its investments in the business, giving further insights into its management’s ability to drive value.

Figure 16. ROIC generated by operators by region, 2001–2011

Source: EY analysis via Capital IQ
Moving beyond EBITDA as operators expand their service propositions

At the same time, new business models in the industry are compounding the need for operators to move beyond EBITDA. Telecoms is a relatively high-margin business compared with other sectors – so an operator that establishes operations in a sector such as IT services may well find that this unit generates lower EBITDA than legacy services such as SMS and voice, resulting in dilution of its overall EBITDA. The lower levels of EBITDA margins typically seen in adjacent market segments is one reason why successful players from other sectors who are acting as disruptors in telecoms do not usually focus on EBITDA.

Given this disparity in EBITDA margins, operators need to find different metrics to communicate the success of new service offerings, such as embedded M2M connectivity, advertising and payments, and OTT applications. Figure 17 maps various new business modes/service areas against the appropriateness of EBITDA and cash return on invested capital (CROIC). As it shows, ROIC can be especially valuable in these new domains.

Global consistency is needed as metrics evolve

In response to the factors we have described, operators worldwide are now generating and applying new KPIs in areas such as per-account metrics, network reach, cash flow and sustainability. However, the new indicators being created are diverging according to local and regional needs, reflecting a wide array of market, technology and competition factors (see Figure 18).

In our view, this global disparity could become a barrier to the market’s ability to compare and benchmark telcos’ performance across different markets. To avoid this pitfall, the industry should attempt to build a consensus on new KPIs so that operators can communicate clearly and consistently to the wider market at a global level. This consensus can be driven both bottom-up by operators – possibly working collectively through trade associations – and top-down by greater engagement with regulators and policy-makers, particularly on penetration and coverage metrics. Investors and analysts may also support the move toward greater consistency.

If a holistic and consistent approach to industry metrics can be achieved, it will help to redefine the sector’s investor relations. As Figure 19 shows, a comprehensive matrix of metrics can now be constructed to cover information and reporting needs across the three key perspectives of efficiency, usage and industry environment. As well as providing greater insight and confidence for investors, these sets of relevant, insightful and integrated KPIs will enable a clearer focus on ROI by management and better investment decisions.

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**Figure 17. Comparison of EBITDA margin and CROIC for TMT services**

Source: EY analysis
Figure 18. Global divergence in metrics reporting

Market characteristics:
- High competition levels
- Early triple-play launch
- Economic/regulatory pressures
- Low fiber penetration

New KPIs: ARPA, M2M connections, spectrum per city, LTE as % of data traffic, CO2/terabyte

Market characteristics:
- Low relative ARPU
- Large rural population
- High mobile competition
- Historic KPI innovation

New KPIs: ARPM, tower tenancy ratios, revenue per cell site

Market characteristics:
- Early 3G introduction
- High fiber penetration
- Telcos moving into adjacent TMT segments

New KPIs: Smart ARPU, handset/service upgrade %, Kwh per MB

Market characteristics:
- Low population density
- Recent consolidation in fixed and mobile
- Aggressive NBN rollout

New KPIs: M2M connections, M2M ARPU, % wholesale mobile subs, CO2/terabyte

Source: Operators, EY analysis
Figure 19. Metrics matrix to cover key information needs of investors and management

<table>
<thead>
<tr>
<th>KPI domain</th>
<th>Efficiency</th>
<th>Usage</th>
<th>Environment</th>
</tr>
</thead>
</table>
| **Customer** | • Average Margin Per User (AMPU)  
| | • Cost Per Gross Add (CPGA) | • Data MB per user per month | • Smartphone/tablet penetration % |
| | • Subscriber Up-selling cost (SUC) | • RGU per user | • Broadband penetration % |
| | • Average call-handling time | • M2M customers/end points | • Pay-TV penetration % |
| | • Contact center calls per sub | • M2M ARP-SIM | • Cloud/virtual IT penetration % |
| | • Capex/sales per sub | • Average contract lifetime | • ARPU % of disposable income |
| **Network** | • Cost per MB transmitted | • Revenue per cell site | • FTTH/VDSL homes passed |
| | • OPEX per cell site | • Kwh per cell site/terabyte | • 4G population coverage % |
| | • BTS down time % | • M2M ARP-SIM per MB | • In-home 3G coverage % |
| | • Dropped call rate % | • BTS peak capacity % | • Points of presence (POP) |
| | • BTS Single RAN % | • Network utilization % | • Cell site intensity (BTS per km²) |
| | • Bps/Hz/BTS | • On-net traffic % | |

**Key financial ratios**  
• Return on equity  
• Return on capital employed  
• Return on invested capital  
• Equity/assets ratio  
• Net debt/EBITDA  
• Operating cash flow margin  
• FCF yield

**Investor Insights**  
• Profitability of new services  
• Cost of serving customers  
• Quality of customer service  
• Network resilience/efficiency  
• Spectrum efficiency  
• Data consumption  
• New forms of connectivity  
• Cross-selling execution  
• Network load  
• Energy consumption

**Operator performance**

**Business environment**

KwH (Kilowatt hour)  
VDSL (Very-high-bit-rate DSL)  
BTS (Base transceiver station)  
RAN (Radio access network)  
Bps (Bits per second)

Source: EY analysis
The factors challenging legacy metrics

The telecoms industry's legacy metrics face significant challenges, both from external factors and internal strategic considerations.

The external factors include:

- **Disruptive competition** – OTT and other technology, media and telecommunications (TMT) players are increasingly competing for the same share of the same customer wallet while using different business models and metrics to do so.

- **Regulation** – Regulation of legacy services puts pressure on incumbents’ revenue and profits, while the separation between net companies (“netcos”) and service companies (“servcos”) is fueling the creation of new types of telco.

- **Customer needs** – Web services and ongoing device innovation are driving up customers’ expectations around price, convenience and value-add.

- **Technology evolution** – New technology rollouts are vital for supporting and enhancing the customer experience – and long-term national coverage targets are already in place in many markets.

The strategic considerations include:

- **New business models** – Business models for core services are changing – with a growing need to communicate new customer usage, revenue and cost considerations as the shift to data continues.

- **New services** – New service opportunities tend to score poorly when evaluated under legacy financial metrics such as EBITDA. Operators are already restructuring their operations to capture these growth opportunities and have put long-term growth targets in place.

- **New stakeholders** – Telecoms operators and their networks are now seen by a range of policy-makers, including government, as an engine of productivity growth and national competitiveness. As such, metrics relating to service and network reach are no longer an indication of competitiveness but a measure of socioeconomic progress.

Key questions for management as they migrate to new metrics

While the industry metrics applied and tracked by operators and investors should ideally be consistent across the world, this does not imply that every operator should use exactly the same ones. Depending on where and how value is created and the business models used, the choice of metrics will vary for each operator. What is needed is clarity on why each metric is appropriate, rather than simply applying the legacy ones because they have been used in the past.

As operators and investors evaluate which metrics are most appropriate in each case, telcos' management teams face a number of questions, such as:

- Which metrics should be used to evaluate profitability in these times of falling EBITDA margins?

- How strong are operators' financial reporting systems?

- Can the systems deal with the additional measurement and reporting needs created by new business models and services?

- How are operators managing the expectations of the analyst communities and financial markets around revenue and margin erosion, while also outlining new growth agendas?

- In planning and budgeting, should traditional one-year horizons be replaced by two- or three-year horizons?

EY believes that businesses that want to reap the benefits of new metrics, both internal and external, should have a clear vision and approach to enacting change. As a leading advisory organization in the telecommunications sector, we have a network of professionals available to discuss the appropriateness of new performance metrics and the steps required to achieve greater business intelligence.
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