Arthur D Little

Cost Reduction in the Telecom Industry

Why operators need to act now to escape from the low-profit spiral

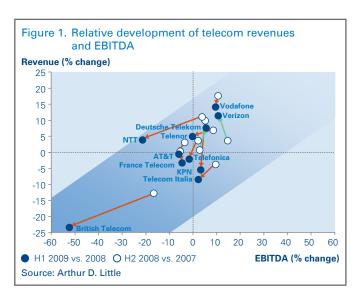


The telecoms industry in Europe and the US is at risk of becoming a low profit business. Margins are under pressure and could drop from the current figure of 35 - 40% to as low as 15% within 5 years. Cost management has to become an inherent core competence for wireless and wireline operators. Significant cost reductions are only possible with substantial changes in the business/operating model. New pressures will mean a change in mindset and the ability to 'think outside the box'. Arthur D. Little has successfully managed this process with many operators.

Introduction - Operators embarked on a low-profit spiral

Pressure on prices and margins is a situation faced by almost all operators. The telecom scenario shows a world going "flat" with abundant voice and data volumes while the cost of promotional discounts to attract new customers increases. As a result revenues and EBITDA margins are under strong pressure, a trend which can be clearly seen in the recent financial results of the top players in the telecoms market. Only Deutsche Telekom and Verizon have escaped this trend (see Figure 1).

Operators have to protect margins when ARPUs are under pressure and simultaneously new technologies trigger new CAPEX. Should the forthcoming FTTx & LTE spending fail to



trigger the type of substantial product innovations that the customer is willing to pay for, the need for cost cutting will continue. This is demonstrated when looking at the illustrative projection of an operator with a -3% revenue CAGR and +2% inflation based OPEX CAGR (see Figure 2). In this scenario EBITDA will drop from 35% to 15% within five years. A low EBITDA level in an infrastructure business like the telecommunications industry puts investor returns at risk. To prevent this scenario, operators need to find new innovative ways to reduce costs.

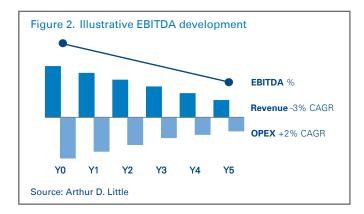
Cost reduction – Unknown costs cannot be efficiently managed

In order to excel in OPEX and CAPEX management, full cost transparency must be established in order to identify, prioritize and optimize additional saving measures. Usually the obvious areas will already have been targeted in the first cycle of cost cutting. Therefore the challenge is to find the hidden potential by enabling a broader audience to act cost sensitive. For this reason the first phase of the cost reduction project needs to focus on establishing a stringent OPEX/CAPEX analysis.

Organizations do not always have the data available to act in a cost conscious manner. Many issues can inhibit an organization's cost management ranging from system or process based barriers to political or emotionally driven behavior. The staff responsible for defining strategies, rollout plans and architectures need to know the current cost drivers and the potential alternatives.

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Arthur D Little



Rather than beginning by collecting the data from different departments which is likely to result in inconsistency, the entire cost basis must first be provided from the top-down, e.g. by the controlling department. These costs can then be categorized and interpreted bottom-up by the responsible departments leading to a controlled 'single source of truth'. This approach provides the systematic root-cause analysis necessary to identify and steer cost drivers and to identify saving initiatives.

A prioritization of saving initiatives is vital to manage available implementation resources effectively. A common approach is to prioritize based on expected saving benefits and required implementation effort and risk.

Organizations need to develop specific cost management skills in line with the four clusters of saving measures (see Figure 3), of which the following two are of particular interest:

- Operational saving measures (low benefit and low effort) need to be constantly identified and realized within day-to-day operations.
- Implementation of strategic saving measures (high benefit and high effort) need to be ensured within a reasonable timeframe without being re-prioritized due to day-to-day market pressure.

Operational saving measures - Enable and incentivize a broader audience to improve cost efficiency

Operational saving measures are considered as activities which render saving benefits of typically in the range of 10% p.a.. These measures include obvious examples like the change of maintenance service level and backhauling optimization or reduction of product portfolio. Less obvious cost saving measures include the introduction of QoS concepts for optimized bandwidth management, reduction of room temperature in local exchanges or the ceasing of 3rd party hardware maintenance for stable legacy infrastructure where better maintenance know-how is often already available in-house.

There are also a broad range of new OPEX saving possibilities which can be leveraged through a new generation of technologies, e. g. in the area of software defined radio networks (SDR) and self organized networks (SON). In addition, energy efficiency becomes more central to the discussion when selecting the next patch of network elements.

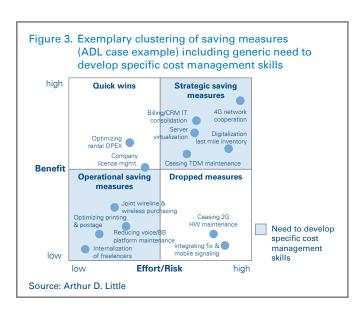
Overall, operators need to identify and realize the operational saving measures on an ongoing basis, year on year. Specific organizational skills need to be developed, including:

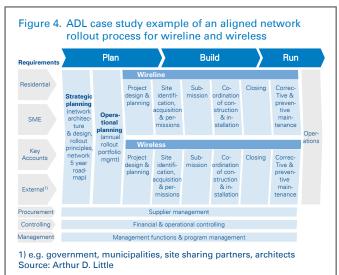
A cost conscious company culture

A basic cost reduction mechanism and culture across all staff must be in place (e. g. personal target setting, cost transparency, etc.). The challenge is to have a culture in place to constantly challenge the existing cost basis.

Appropriate procedures & tools

Even after fulfilling the key requirement of providing cost transparency there are still barriers to overcome. Often the misalignment between the unit responsible for the budget and the unit influencing the cost drivers reduces cost efficiency measures.





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Cross-unit alignment

To optimize OPEX and CAPEX a dialogue between the strategic and operation representatives (e.g. network and IT) needs to be ensured, in order to prioritize and balance cost increasing and cost cutting activities. Multiple technology ecosystems increasingly compete against each other (e. g. IPTV vs. DTH, ADSL vs. HSPA, VDSL/FTTx vs. LTE, macro rollout vs. femto deployment...) and the need for alignment is vital.

Alignment of long-term vs. short term objectives

Often project tasks are in competition to long term strategic measures or even long term saving initiatives (e. g. a business requirement implemented as a workaround into a legacy software application). This perspective changes, when project budgets are forced from the beginning to include the costs required to reverse the workaround at a later stage.

Strategic saving measures - Larger savings require bold strategic measures

As most operators have already gone through multiple cost reduction cycles it is a big challenge to identify significant additional saving levers. Larger saving benefits require in most cases strategic measures which involve changes of the business or operating model.

An example is the recent announcement of Deutsche Telekom to consolidate the wireline and wireless organization, where the costaspect was one of a number of key arguments. This has re-ignited the fixed-mobile consolidation process in the industry. A few incumbent front-runners like Swisscom and KPN already started this process some years ago and now present themselves as true FMC-companies in front of the customers.

The consolidation impacts on all key business aspects, such as sales/marketing (e. g. shop consolidation), customer care (e. g. call centre consolidation), IT (e. g. system consolidation, shared service centers) or network (e. g. civil works consolidation, rollout optimization,...see Figure 4). However there are also certain barriers to overcome (see separate case study).

Another rejuvenated trend is in the area of wireless network sharing and outsourcing. Even though network sharing is a well known cost cutting approach it has been given more prominence following the recent industry announcements of the joint venture between T-Mobile and Orange in the UK which targets EUR 270 mio. p.a. savings and between PCCW and Hutchison in Hong Kong (see Figure 5).

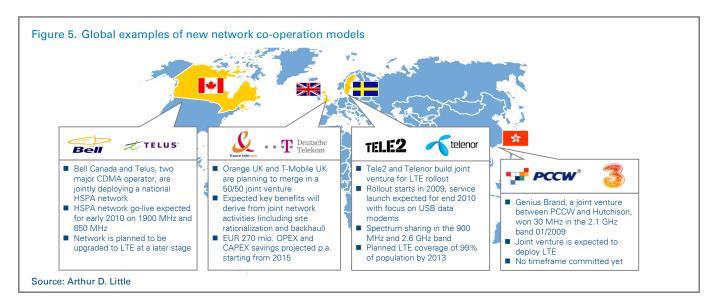
The need for these partnerships is driven by the continuing cost pressure of a highly competitive market environment. The pending investments for upcoming 4G rollouts (e.g. LTE) provides an additional argument to strike a new path. Cost optimization has to consider future OPEX and CAPEX of planned projects and investments. The possibility of co-operation needs to be evaluated now, before the option space is limited as potential partners commit to competing operators.

Conclusion

All players in the telecoms market will be forced to reduce their long term costs. Incumbents will be affected to the same extent as alternative operators. Arthur D. Little expects these players to initiate cost saving measures year on year.

The management has to ensure that the organization acts cost consciously to leverage operational saving measures. The organization has to have the tools and procedures, including full cost transparency, in place. Basic cost controlling techniques have been established in most organizations but it is now essential for steering tools and procedures to be aligned to actual business

Operators need to act now in order to realize strategic saving measures and optimize forthcoming investments related to FTTx



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and 4G (e. g. LTE). One CAPEX reduction measure could be to delay LTE roll-out and to, meanwhile, upgrade HSPA which requires lower CAPEX needs. There is a window-of-opportunity to leverage substantial cost savings by stepping into new operating models. Operators are already screening possibilities for cooperation. If nothing is undertaken, there is a high probability that required synergies will be lost and potential partners will team-up with competitors.

Arthur D. Little has successfully managed the process of OPEX and CAPEX optimization with many operators.

Side box:

Case study – Barriers to overcome when consolidating wireline & wireless organizations

Technology barrier

By nature there is a significant difference based on the technology itself and related physics. The challenge for a successful integration lies in finding and consolidating the relevant competences that are overlapping (e. g. rollout supervising, supplier management) and maintaining the individual activities specific to the technology (e. g. radio site approval, splicing).

Cultural barrier

A substantial discrepancy, most particularly for all wireless and wireline operations, is the difference in company culture. Wireline operators build on a long tradition within the telecommunications industry with substantial resources already invested in deploying and maintaining remote telecommunication elements. Wireless operators however, have been active for only a couple of years and developed their wireless infrastructure based on a smaller number of network building elements.

Operating model barrier

As a result of the different company cultures there is also a huge difference with regard to business and operating models. Wireline operators cover more activities in-house compared to wireless operators. One example is the rollout of infrastructure, which is often planned, designed and executed in-house by wireline players and outsourced to turn-key-providers by wireless operators. A consolidation and alignment of processes therefore has to cease one or the other operating model.

Political barrier

The excess of management shouldn't be underestimated. As wireless and wireline responsibilities are merged, there are suddenly two management resources available to take responsibility. Often one can observe that interim organizational units will be formed to accommodate and maintain both management resources. This postpones the effective fixed-mobile consolidation further and reduces the risk of a big bang approach when consolidating the organization.

Contacts

Karim Taga

Managing Partner TIME practice taga.karim@adlittle.com



Dr. Michael Opitz

Director TIME practice opitz.michael@adlittle.com



Jesus Portal

Partner TIME practice portal.jesus@adlittle.com



Thomas Kuruvilla

Managing Partner TIME and S&O practice kuruvilla.thomas@adlittle.com



Additional author

Clemens Boehmer

Arthur D. Little

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