









EDITORIAL

Welcome to the first edition of the Oliver Wyman CMT Journal.

In recent years, the communications, media and technology sectors have faced significant disruption and intense market pressure. New entrants have stolen market share or even redefined entire sectors, regulatory decisions have intensified margin pressure, technological advancements have provided new opportunities but also enabled new competition, and customers' fickle tastes, increased choice and lower switching barriers have brought on wild swings in market success. However, despite these challenges, our experience with players across these sectors has also revealed significant opportunities. In our eyes, this means that players across sectors and geographies have a good shot at a brighter future by learning from the challenges and the experiences of their peers.

For example, telecoms across the globe are facing serious challenges, but these challenges have spurred many of them to find creative solutions. In Europe, intense margin pressure has inspired transformative operational cost rebalancing that would never previously have been considered. "Analytics-based" decision-making has now become the norm among the best operators, often borrowing from consumer finance or retail capabilities. And there have been great strides forward in customer experience, catalyzed by the cost-driven need for operational simplification. These could all serve as valuable examples for operators in other markets and sectors who might very well face similar pressures in the future. Meanwhile, the tech-innovation boom in the United States has set off a new wave of products and services, and many of the advances in video consumption, social networking, and mobile apps are redefining consumers' expectations of experience, interface, navigation and aggregation. It will be essential for mature operators around the world to understand and respond to them.

In this compendium, we present our experience of how operators have managed key challenges facing their organizations. Our lead article introduces transformative steps operators can take, not only to adapt to today's challenges but also to remain flexible for the further changes the future will bring. This "future-proofing" theme continues in subsequent articles as we explore a variety of practical approaches to areas such as cost-cutting, data-driven decision-making, and bad-debt optimization.

This journal is in no way meant to be exhaustive in the topics covered, and future publications will augment and complement this initial set. We hope these perspectives provide an interesting, thought-provoking read, and we would welcome your feedback, discussion and spirited challenges.

Best regards,

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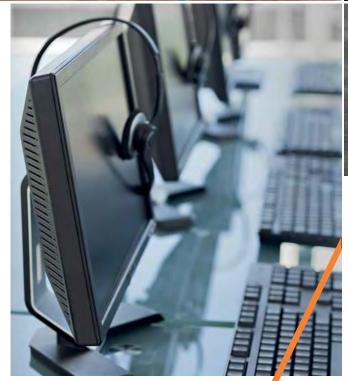
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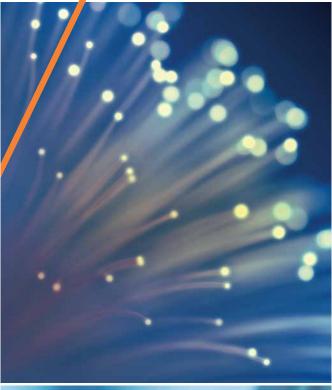


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With the dawn of new media, many customer-oriented industries began to experience huge booms in commercial activity. Telecommunications companies, however, have seen their market segments stripped away and have faced dips in demand despite increased activity in their networks. Telecoms have responded by implementing a series of efficiency programs to boost competitiveness, but have fallen short of meaningful growth, and are now being forced to enter another round of investment that will not be easy to finance. Facing this situation, the best operators in mature markets are increasingly looking at what their "endgame" operating model, and cost position, should be – and modifying their transformation ambitions accordingly. This new level of efficiency ambition is relevant for all players in mature markets, and also for those operating in markets still growing but facing a similar future as saturation kicks in.

FUTURE-PROOFING TELECOMS WITH AN ENDGAME APPROACH

Rafael Asensio Matthias Lorenz

AN INDUSTRY UNDER PRESSURE

Within the last 10 years, the telecommunications business in most mature markets has gone from experiencing healthy growth to stagnation to open decline in revenues and profits. Despite an actual acceleration of growth in traffic volumes, revenues in the industry have increasingly decoupled from volumes. The situation is only getting worse as products and services become more simplified and flat-fee oriented while being subject to increased price competition from hungry players in penetration-saturated markets. And therein lies the paradox: The more quickly the world's consumers and businesses eat up bandwidth, the harder it becomes for telecommunications operators to sustain their profitability and even their revenue levels: Industry revenue in Europe has dropped by a staggering 20% over the course of the last six years, while data traffic multiplied by a factor of 12 in fixed line and 83 in mobile.

At the same time, the strategic challenges have grown considerably: Operators will need to invest heavily in fiber and LTE infrastructure in coming years if they want to be able to handle the growing traffic and retain their business with current customers. Then again, operators' attempts to eat into "over the top" (OTT) Internet services have not only met with little success, but the more successful OTT players have actually managed to further erode the telecommunications business instead – SMS and subscription-based television serve as two prime examples of such successful OTT inroads, but they are certainly not the only ones.

THE EFFORTS SO FAR

Management teams are all too aware of these developments. On the cost side, most operators work hard to reduce their OPEX base by making efficiency improvements and implementing transformation programs. On the revenue side, operators attempt to unlock new sources of growth in the form of new products, services and even businesses.

Unfortunately, the majority of operators' attempts to boost revenue through offer innovation have more or less failed to deliver on the initial expectations placed on them. These failures have pushed some in the management community to begin wondering whether there may be a fundamental difference between the provision of core telecommunications services and that of online services and content: Perhaps these activities are only loosely connected businesses after all. As Internet players create – and drain – new sources of revenue, telecommunications operators are left with an evershrinking share of consumers' "communications and media" budget. Moreover, this share is directly driven by data-traffic fees that are subject to price competition, and not sufficiently linked to volume growth.

In the meantime, however, efficiency improvement efforts have been paying off, providing some – if not total – relief. Over the past five years, many operators have been able to significantly increase their efficiency and save costs accordingly.

Numerous market players not only harvested "low-hanging fruit" – for example, by optimizing purchasing or doing away with obvious inefficiencies, but also truly improved and streamlined their processes.

At this point, these companies' situation resembles a person who reacts to other individuals' negative assumptions and peer comparisons by going through a demanding, tailored sports program to get fit. But because all competitors have reached the same conclusion, all of them have undertaken these fitness programs, and their relative positioning has remained more or less the same. Moreover, in this intensely competitive market environment, nearly all savings are passed on to the market in the form of price reductions.

This is done in an attempt to compensate for the lack of new sources of growth by increasing market share – the quintessential "rat race."

SO... WHAT'S NEXT?

Even if one ignores the industry's sustained attempts at revenue innovation, the structural nature of the telecommunications industry's competitive dynamics, and most notably the investment requirements it puts on operators to stay competitive, demands that the best operators make a major leap forward in efficiency in an attempt to succeed against their peers. Operators who gain and keep a true efficiency edge will not just be more capable of investing in new networks and services for further competitiveness, but will also be better prepared for price competition... and therefore more able to signal to others that a race to the bottom would not be in their best interest. While this might seem logical, it is easier said than done.

After years of cost reductions, what is left to improve, and how can this be done?



A look at past developments in this sector might offer some hints about the future. These can be summarized into five principles for action:

- As evidenced by the industry's "new services" track record, operators should treat core telecommunications and online services as different businesses, not allowing the latter to drive complexity and inefficiency. This also means running the former with a ruthless focus on simplicity and efficiency.
- Operators should put more emphasis on industrial, not just marketing, innovation – in other words, they should become more creative in finding ways of efficiently delivering their products and services as well as simplifying activities and reinventing and automating existing processes.
- 3. When telecommunications products and go-to-market strategies become more simplified, operators should exhaustively remove and kill nonessential activities, processes, assets, contacts, claims, complaints, tickets, faults, repairs, installations, offers, promotions, product options and variants, "low-value" value-added services and other nonessential extras.
- 4. If the world is going online, then operators must transform themselves into online companies: automatic, remote and nonphysical. This should be carried out to the same extent other industries from banking to retail are doing this.

 In contrast with what has been done the past, operators need to source capital for more than just deploying new products, services or bandwidth.
 Capital should be employed to aggressively restructure down to the bare essentials.

When examined under the lense of these principles, it becomes apparent that, even after several years of reducing costs, most players still operate at cost levels significantly higher than strictly necessary. An opportunity, then, exists for the best run operators to take a major leap forward and close this gap, as long as they have the will to truly reinvent their core telecommunications businesses. By doing so, they might end up in a far better position than what is possible through playing "benchmarking catch-up" as most of the current efficiency improvement programs do.

DRIVING CHANGE TOWARD THE ENDGAME OPERATOR: WHAT THE BEST IN CLASS DO

How does an operator go from "classical" improvement programs to the bold ambition to take a true leap forward in efficiency?

The best operators we know have already gone through three waves of efficiency transformation efforts since the industry's revenue peak, positioning themselves above their peers in terms of operational efficiency.

EXHIBIT 1: THREE WAVES OF EFFICIENCY TRANSFORMATION EFFORTS

FIXING THE BASICS

Elimination of obvious redundancies, ironing out of clear inefficiencies, and realization of quick wins

ACHIEVING OPERATIONAL EXCELLENCE

Continuous process optimization, removal of work volumes, and improvements in automation

MOVING TOWARD THE 'ENDGAME'

Definition of a "final" operational model and cost scenario, and implementation of structural changes inspired by a greenfield approach to the core telecommunications business

This progression is represented in Exhibit 1, which shows how, after achieving excellence under their current operating model, management eyes have increasingly turned toward the structural changes needed to make these long-established operators look increasingly like greenfield players. This transition is being realized by:

Setting a radical, greenfield-inspired target

It is important to make leapfrogging a goal. Instead of looking at today's operation and setting benchmarking-based targets, or even arbitrary financial objectives, the only way to really do this is to design a greenfield operator (zero-cost based) and subsequently discount targets according to existing legacy infrastructures. Taking this approach not only gets rid of traditional silo thinking, it also enables operators to take a fresh look at the process and product landscape. Questions like "Can this be cut out?" turn into "Would we do this if we were to set up the company from scratch today?"

Adopting superior diagnostics

This requires implementing a company-wide KPI system that goes beyond pure financial control. It must include a regular collection of process-performance samples as well as systematic tracking of KPI performance and subsequent program adjustment. These deep insights make the potential trade-offs from cost reductions transparent to all shareholders and enable operational decisions to be made with a more strategic perspective.

levers systematically

For the telecommunications industry, this means dispensing with "sacred cows" and looking at all activities and cost types to systematically address all efficiency levers in what we call a "total activity" view. This view entails:

Address all costs and all

 Reducing demand: This means systematically reducing undesirable customer interactions and other work volumes such as billing enquiries, support calls, repeat errors, onsite repairs and the like.

- Improving efficiency: This implies automating process steps, reducing complexity, eliminating redundant or overlapped activities, discontinuing nonessential processes, and harmonizing processes to simplify end-to-end delivery, among other streamlining actions.
- Adapting factor costs: This can range from changing rate structures for key contracts to implementing optimal shoring to migrating to value-driven sourcing schemes.

Creating the right implementation design

It is important to take the restructuring effort into account right from the start when designing measures. The different measures must fit together, and the management levels responsible for the technical side must be involved in the design process as well as incentivized for the implementation effort.

ENDGAME EFFICIENCY LEVELS – AND HOW TO GET THERE

This may sound easier said than done, and in general it is – particularly when it comes to actually pursuing endgame efficiency levels that only a greenfield operator could realistically achieve. To realize this seemingly utopian task and to derive appropriate transformation actions from such radical scenarios, operators at the leading edge of this movement are following four steps:

- Defining a greenfield operator: a theoretical, "legacy-free" company that reflects existing market conditions and current business volumes (such as the number of customers and size of the business), and the target operating model to support it.
- Adapting the greenfield model to the expected development of the business (including number of customers, traffic volumes, price development and recognizable technology leaps) over the next three to five years.



- 3. Assessing the investments needed to reach this target vision and, more importantly, defining the legacy elements that cannot be removed and gauging their impact on realistic target performance. This makes it easier to conduct the appropriate trade-off discussions that help determine what investments make sense and to build "discounts" into the model that price nonremovable legacy limitations. This results in what we call an "endgame operator model" a radically ambitious but still realistically achievable vision of what the operator should look like in three to five years and consequently a blueprint for the future.
- 4. Formulating concrete actions that attempt to successively align operations with the target model.

All of the measures draw on an integrated business plan that is typically different from and more aggressive than the operator's own strategic plan and budgets.

Exhibit 2 illustrates the cost and FTE metrics typically associated with these endgame models. As the figure shows, even when adding back the cost delta driven by "nonremovable legacy," targets for a typical operator's realistic endgame model fall significantly below today's cost position even after years of previous cost-savings work. The material impact on operating costs brought about by this approach will, in our opinion, separate outperformers from underperformers in tomorrow's telecom industry.

EXHIBIT 2: ILLUSTRATION OF COST AND FTE METRICS TYPICALLY ASSOCIATED WITH THESE ENDGAME MODELS



Source: Oliver Wyman analysis. Charts have been linearly shrunk for approximate illustrative purposes, not reflecting the real cost breakdown of an endgame operator model.

When compared with traditional benchmarking-based approaches to cost reduction, taking the endgame approach allows the most determined operators to:

- Make discussions much more strategic. The need to design a greenfield alternative as a starting point for the endgame cost position forces the company to discuss operating model evolution first and financial targets later.
- Prevent the interests of individual departments from carrying much weight in the discussion, as the endgame model is built through joint effort.
- 3 Establish significantly more ambitious savings opportunities and levers than under a more traditional cost-cutting approach.

A NEW OPERATING MODEL

Reaching these new levels of efficiency requires a change in the operating model that starts with a new way of thinking about a future telecom operator.

Some of the key shifts in mindset include:

- Taking a structurally different market approach based on simpler offerings that change less quickly. This approach also aims to significantly reduce the "washing machine" effect – that is, the structurally induced quick rotation of customers through expensive acquisition and churn. This approach also avoids promising to provide every product to every customer everywhere, and instead takes "design to cost" considerations into account. Furthermore, it is based on smaller, less physical sales channels without significant overlaps.
- 2. Implementing a customer interaction strategy that tries to reduce or automate all interactions that do not target selling. This might mean a reduction in call reasons or a first-time-right approach.
- 3. Developing a delivery model geared toward providing truly cost-efficient service. Such a model largely dispenses with customized systems and exploits economies of scale by entering into partnerships in the market (through, for example, network sharing and field O&M consolidation) and taking part in group synergies to the greatest possible extent. This kind of model also takes full advantage of new technologies to reduce operating costs (for example, by replacing substantial parts of the IT stack). It also aims to optimize process chains across all parts of the organization by using a true end-to-end process model.
- 4. Additionally, the endgame delivery model makes performance transparent across all units: In doing so, it not only defines how business transactions can be processed efficiently, but also how they can be systematically reduced.

With this new mindset in place, leading operators in mature markets are rethinking each and every functional area and boldly moving to implementation. Exhibit 3 shows a summarized view of some of the key axes of change.

EXHIBIT 3: KEY AXES OF CHANGE

- Small physical channel footprint
- Mainly nonphysical, internal, online
- No overlaps
- · Low GAs and churn
- 80–90% remote provisioning and repair
- Selective provisioning
- Selfinstalls
- Charged onsite installs
- All relevant NW elements accessible by technical hotline
- Standard packages
- Few apps, environments
- · Parameterization vs. developments
- High utilization (e.g. virtualization, license allocation)
- Outsourced
- Group shared



MARKETING

- · Simple offer
- · Limited customization
- Few promos
- Few handsets
- Few launch windows
- · Few PMs
- Fewer subsidies
- FMCG brand & comm
- Group shared

CARE

- All transactions possible online
- Selfcare as primary channel
- Charged mass market hotlines
- Call center OSPs managed for volume reduction
- No paper
- Direct debit

NW

- Fully shared mobile NetCo
- Outsourced & shared commodity activities
- FMS where feasible
- All-IP, optimal layout, standard components
- No legacy (PSTN, ATM, PDH, SDH)

G&A, FAC

- Small management structure
- Performance culture and comp
- Simple controlling
- Minimal support functions
- Lean facilities
- No group overlaps

CONCLUSION

How much is at stake? Since endgame thinking has only just begun to gain ground in the sector, it is difficult to name a set figure. In Europe alone, where efficiency has already been on the agenda for years, our preliminary estimates point to a further EUR 30 billion to EUR 35 billion in potential annual savings in industry OPEX that could be driven by this vision. In less-saturated markets, the value at stake is harder to estimate now, but operators in these markets would do well starting to prepare for the next market situation in order to fuel remaining growth, finance new investments, and be prepared for more intense price competition as the market saturates.

Endgame thinking, then, represents a game-changing play for the boldest operators around the world, one that will prove crucial to financing CAPEX needs, withstanding revenue pressures, and even being able to influence price competition in coming years.

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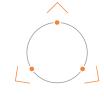
BUILDING VALUE FROM CARE

Matthias Lorenz Emmanuelle Bersier Felix Reichardt Jan Bicej Miriam Robredo

In light of increased margin pressure resulting from growing competition and industry commoditization, many telecom operators have launched operational efficiency programs involving, among other initiatives, the optimization of customer care. The term "customer care" encompasses commercial and technical care hotlines as well as back-office, billing and collection activities. In the telecom sector, it accounts for, on average, around 10% of indirect operating expenses for fixed-line and mobile services. The sector's customer care activity is heavily driven by call volumes: Operators receive, on average, 1.8 and 2.5 calls per subscriber per year for fixedline and mobile services respectively. Despite the clear cost opportunities in this field, Oliver Wyman believes that providing services at minimum costs should not come at the expense of customer satisfaction. When carried out smartly, operations can be improved simultaneously in the areas of quality, upselling potential and cost reductions (see Exhibit 1).

EXHIBIT 1: CUSTOMER CARE'S TRIPLE AMBITION

Higher customer satisfaction



Lower care costs

Increasingly profitable upselling and cross-selling

Oliver Wyman has supported numerous operators in turning around their customer care activities, achieving cost efficiencies of 20% to 45% while increasing customer satisfaction and attaining better care-to-sales ratios. In particular, these improvements have been carried out in customer care frontline operations. The frontline is the first level of commercial and administrative support in call centers, and for an average converged operator, it accounts for:

- roughly 20% to 35% of overall customer care activity costs and 30% to 50% of its headcount,
- 15% to 30% of overall customer satisfaction key performance indicators (KPIs),
- and 40% to 65% of all direct customer interactions.

For mobile-only players, these respective shares are even higher. To generate operational improvements in all of these areas, Oliver Wyman's approach rests on three pillars: creating genuine transparency, streamlining operations to match best practices and implementing solutions in a smart way.

CREATING TRANSPARENCY

Although operators often possess ample performance data for customer care hotlines, poor data quality and lack of an end-to-end perspective undermine their ability to increase operational performance. Furthermore,

many operators fail to adequately understand call reasons, underlying root causes, call flows and call transfers as well as agent performance.

In order to make this data operationally valuable and to set deflation, automation and digitalization targets, operators should concentrate on a few specific analytics. The six analytics recommended by Oliver Wyman are: collecting call samples and customer research (to understand the call's root cause), mapping call flows and volumes, assessing current IT infrastructures, analyzing agent skill sets and agent incentive models, benchmarking operational performance and reviewing outsourcing contracts.

Such analyses have shown, for example, that repeated calls and call transfers account for a significant share of total call volume – in some cases more than 30%. In turn, this leads to additional workload and affects customer experience. Furthermore, these analyses have shown that agent performance varies tremendously, and restrictive steering models can be counterproductive. On the basis of these and other findings, Oliver Wyman can construct a concrete, targeted operational-improvement program. To prioritize the implementation of these plans, Oliver Wyman's clients have found great value in linking their customer care operating expenses to operational drivers using driver trees, which clearly separate volume effects from unitary cost factors (see Exhibit 2).

EXHIBIT 2: LINKING CUSTOMER CARE COSTS TO OPERATIONAL DRIVERS

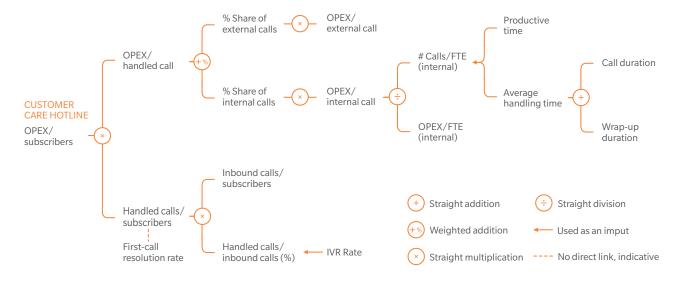




EXHIBIT 3: SUMMARY OF ACTIONS TO STREAMLINE CUSTOMER CARE IN CALL CENTERS

2. Productivity and

2.3 Optimized

efficiency improvement

2.1 Boost agent performance

2.2 Improved tools and processes

workforce management

2.4 Optimized support functions

- 1. Demand management
 - 1.1 Volume deflation
 - Simplified tariff models
 - Improved billing
 - Improved control on commercial activities
 - Increased firstcall resolution
 - 1.2 Call deflection
 - Care channel management
 - Improved e-channel
 - Improved communication

Reduction of low-value calls contacts

Incentivized usage



Increase of output per hour

- 3. Cost optimization
 - 3.1 Outsourcing
 - 3.2 Right-shoring
 - 3.3 Right-sourcing



Decrease of cost per productive hour

STREAMLINING OPERATIONS

After understanding volumes and reasons, focus can be shifted to structurally improving performance by activating three major levers: better demand management, improved productivity and efficiency, and cost reduction (see Exhibit 3).

DEMAND MANAGEMENT

Demand management centers on reducing call volume. This is best achieved through smart call deflation and call deflection, which not only lead to cost reductions, but also to improved customer satisfaction.

Volume deflation

To successfully reduce call volumes, operators must implement improvements that eliminate the root causes of customer contact. However, working on existing root causes does not ensure long-term deflation; it is equally important to address the structural drivers of root causes. These are usually found in inadequate, poor or unclear business rules, insufficient know-how and learning, and a lack of compliance from employees or partners.

Another way to reduce volume is to increase first call resolution (FCR) rates. This requires shifting focus from call duration – which can lead a customer to call back with the same issue if the agent does not spend enough time on the call to determine its root cause – to actual problem resolution. Because FCR rates are positively linked to agents' degree of expertise in relevant topics, it is important to encourage specialization, training them to solve a smaller number of specific customer issues. It is still important to maintain a balance between multiskilling and specialization to manage utilization. By deploying intelligent call routing mechanisms in parallel, operators ensure that customers are routed to the agent with the most appropriate skill set, thereby minimizing the number of transferred calls.

Call deflection

Call deflection involves steering customer contacts to more automated channels and thus reducing call volume. Efficiency is measured in terms of both costs and success rates in upselling and customer retention. To optimally manage the mix of contact channels, operators must first define their multichannel strategy and identify the most efficient channels for each type of contact. In essence, low-value contacts on generic topics should be shifted toward automated and digital channels, while valuable calls with upselling potential should be directed to performing agents or even physical sales channels.

To effectively reduce volumes and deflect calls, an operator must set up care governance, build an appropriate infrastructure, raise customers' and agents' awareness about care channel alternatives and incentivize customer and agent behavior. Setting up care governance requires operators to go beyond the traditional boundaries of customer care and sales organizations to manage the overall care channel mix. "Multichannel management teams" can help achieve this ideal mix, reach volume targets and maintain service consistency across channels.

In addition to care governance, operators must build an infrastructure, digital service portfolio and user interface that creates customer pull and inherently reduces call volume. Concretely, this translates less into designing features and functionalities, and more into creating a seamless, simple and enjoyable experience. To get to this point, operators must place the customer at the center of their digital-channel and service development. This means rigorously testing all customer-facing features, functionalities and communications with actual users and not resting until these are intuitive and easy to use. Even then, however, most customers still prefer to call a hotline or visit a store.

Over the years, Oliver Wyman has compiled a list of the greatest inhibitors keeping customers from conducting their business online.

These are – along with their possible solutions:

- Insecurity and a desire for interactivity: This can be addressed with seamless chat integration.
- Inconvenience: This can be addressed by improving usability.
- Unawareness: This can be solved with advertising campaigns, onboarding, etc.
- Low incentive: This can be remedied with hotline charges.

When managed well, a shift to digital can go hand in hand with better customer experience. Therefore, it is paramount that operators ensure ease of use before pushing customers to digital channels.

IMPROVING PRODUCTIVITY AND EFFICIENCY

In addition to volume-reduction initiatives, call centers can improve their productivity and efficiency levels by boosting individual agent performance, deploying better tools and processes, optimizing workforce management and streamlining support functions.

Boosting agent performance

Best-in-class operators set themselves apart with their performance-management systems, using sophisticated KPIs designed to foster both productivity and quality: AHT and calls per agent are the most relevant basic KPIs used, but more advanced operators may choose to measure performance using a combination of indicators that can be adjusted to reflect an agent's particular skills. This approach allows them to decide whether to "invest" in speed or quality on a call-by-call basis. Supported by reporting tools, performance should be measured at the agent level rather than by team or skill set, with the aim of reducing standard deviation between agents. In addition to addressing structural issues hindering overall performance, operators should invest in improved training content tailored to agent skills and areas where they consistently underperform. Finally, operators need to minimize employee turnover, for example by positioning call centers in regions with trained labor and less competitive job markets as well as by developing HR programs that provide employees with visible careeradvancement opportunities.

Improving tools and processes

Technology used to increase agent productivity should support increased personalization, automation and access to information. Most advanced operators have been able to improve the speed and availability of existing IT systems as well as reduce the number of systems needed to process a request – particularly legacy systems with slow, complex interfaces.

Operators should also build structures that proactively provide agents with customer-relevant information and that employ speech- and text-based analytical tools to increase in-call search options. Documentation of customer information should also be part of the

equation, but its relevance must be weighed against the need to swiftly address customer requests. Finally, it is important to maintain a balance between process consistency and resolution flexibility: Rigid processes may lead to lower FCR, while too much flexibility in the front line could trigger repeated calls from customers hoping for a "nicer agent."

Workforce management

The key to optimal resource management lies in minimizing agents' idle time while maintaining high service levels. Sophisticated metrics based on past seasonality and the impact of commercial activity help to increase the accuracy of call-volume prediction and optimize capacity sizing. Top-performing operators even integrate the service-level agreements from various customer segments into their capacity prediction and use skill pyramids with "downward compatibility" to allow multiskilled agents to shift down to more simple calls during periods of low activity. When it comes to managing capacity, internal and external agents with adaptable schedules should work at the same time so operators can adjust capacities without increasing fixed costs. Lastly, operators should minimize idle time by setting call overflow rules across internal and external centers and by converging inbound and outbound platforms with tools like auto-dialers, which allow inbound agents to make outbound calls when idle or to work on back-office activities.

Support functions

By creating larger platforms and consolidating call-center locations, operators can upscale existing locations. Good candidates for closure are generally found in small, expensive locations with little or expensive available talent. Closing such locations may be seen as risky and controversial, but it can have positive effects – especially when combined with more significant, legacy-based procedural changes.

COST OPTIMIZATION

After implementing the previous measures, operators can further optimize costs in three ways: right sourcing, outsourcing and right shoring, the latter two being the most impactful. Infrastructure and licensing-based IT costs can be driven down by implementing such right-sourcing measures as multiseating and desktop virtualization, while the consolidation of call centers and optimization of space management can, in turn, reduce rental costs. Outsourcing, which can range from single activities to entire divisions, provides operators with access to flexible resources, expertise, specialized capabilities and systems that could take years to develop in-house. Successful management of outsourcing partners differs across markets and industries, but in general requires flexibility, performancedriven compensation, competitive environments and incentivizing contractual models. When implemented properly, the mix of near- and offshore locations allows operators to maintain a steady customer-satisfaction rate and a competitive advantage, particularly those active in multiple international markets.

BOOSTING UPSELLING CAPABILITY

For many operators, customer care call centers host more than 50% of client interactions. Call centers should strive to maximize their sales conversion rates by focusing on care-to-sales. To really squeeze out maximum potential, an operator must ensure that agents are skilled, motivated and have access to the right tools. Sales skills should be considered part of an agent's basic skill set and measured accordingly, and call scripts must be formulated to allow agents to switch into a sales speech during any given call, should the opportunity arise. After all, the ability to close sales is a key skill set for measuring agent performance. IT investments, such as CRM systems upgrades that prompt agents to upsell and cross-sell customer-specific private offers, are also recommended. Oliver Wyman expects that advanced customer understanding and sophisticated sales potential predictability will grow increasingly important in the near future as Big Data gains popularity across industries.

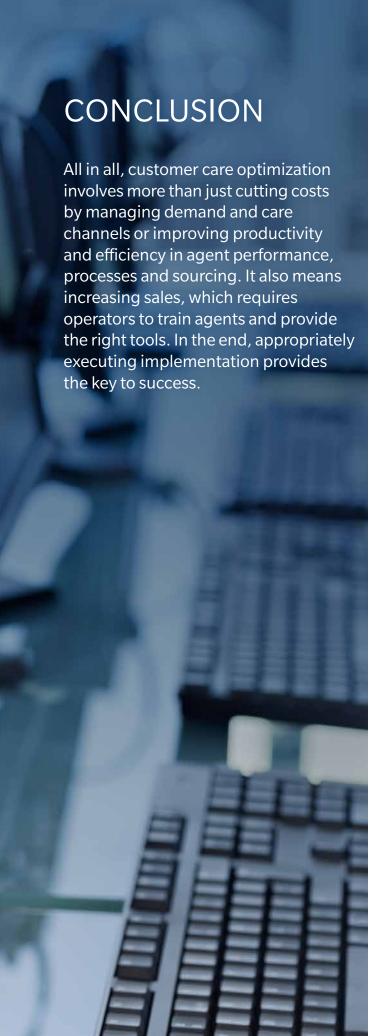
IMPLEMENTING EFFICIENCY MEASURES

Call-center efficiency efforts often fail not in design, but in implementation. Because failed implementation in customer care can directly impact clients, operators should not underinvest in removing related risks. For example, to overcome resistance from agents and team leaders that may be spurred by a belief in "good old methods," operators can call on new agents or current leaders to push radical new activities. It may also help to pare down activities and focus on fewer and clearer projects to avoid overwhelming employees. To minimize the error multiplication and service interruptions that often accompany transitional periods, Oliver Wyman suggests that operators plan double-run periods for critical activities and identify "backup" providers to handle overflow.

In the event of cross-divisional changes, operators may experience a lack of cooperation from the organization's other departments. Successful implementation plans avoid this by developing commitment through cross-divisional steering teams, which also serves to provide higher visibility for call-center efficiency. Once uncooperative parties understand the need for change, they will be more willing to convince their teams to implement improvements. By dedicating time and resources to effectively communicate why a change is necessary and by sharing early success stories, all stakeholders involved in the optimization process can be motivated to positively engage and drive the optimization efforts.

ENABLING STREAMLINED SUCCESS

Oliver Wyman has recently helped more than 10 operators successfully manage a turnaround and transformation of their care activities from cost centers to efficient value-creation platforms. Drawing on years of experience, Oliver Wyman not only brings its customers up to a "best-in-class" level, it also streamlines the path to this goal, accompanying clients as they define customer care strategy and make required changes. With increased efficiency during and after implementation, operators see results in higher customer satisfaction, lower costs and climbing profits.



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EASING GROWING PAINS OF FIELD SERVICE ORGANIZATIONS

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TECHNICAL SERVICE STRUGGLES

Despite advances in technology and industrial processes, fixed-line operators are still faced with a major cost driver and key target for cost improvements in the form of Technical Service – a term that encompasses technical hotlines, switching units both at the main distribution frame and at street cabinets, provisioning and error resolution directly at the customer premises as well as associated support functions, such as dispatching and remote-error diagnosis. For incumbents in Europe and the Middle East in particular, Technical Service makes up an average of around 18% of indirect operating expenses, and binds the capacity of 26% of their combined internal and outsourced employees.

In recent years, many telecommunications companies have tried to offset this cost burden by pouring a considerable amount of energy into cutting costs. Unfortunately, additional costs related to changing product mixes have voided large parts of these savings. Double play (2P) and triple play (3P) products have brought on complications associated with the more intricate technology. The gap between operational key performance indicators (KPIs) for these products and standard voice-only lines (1P) remains large. The mean time between assists (MTBA) for 2P clocks in at roughly 56% of the MTBA for 1P, and the rate for 3P is as low as 37%.

EXHIBIT 1: TECHNICAL SERVICE OPEX/TOTAL INDIRECT OPEX (FIXED-LINE BUSINESS)

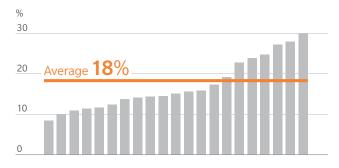


EXHIBIT 2: TECHNICAL SERVICE FTE/TOTAL FTE (INCLUDING OUTSOURCED FTES)

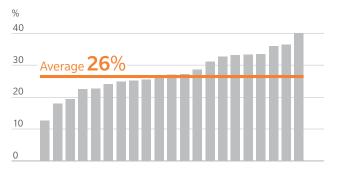
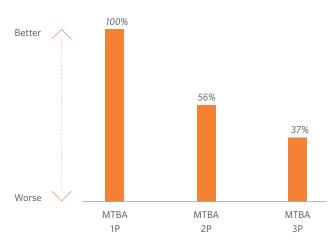


EXHIBIT 3: MEAN TIME BETWEEN ASSISTS (MTBA) PER PRODUCT TYPE COMPARISON



Add to this the exponentially worse remote-installation rates, remote-resolution rates and repeated-error rates that many operators experience, particularly for 3P, and it comes as no surprise that most incumbents have failed to reduce overall Technical Service costs to a sufficient degree despite succeeding in boosting such KPIs as cost per installation or per repair for particular types of products.

These discouraging figures have prompted many operators to consider fully automated provisioning and error-resolution processes based on next-generation network (NGN) technology. However, because implementing NGN involves replacing most of the network infrastructure, investment volumes remain significantly higher than expected savings. As a relatively new technology, it involves highly complex migration processes, making it a cost-savings gamble that most companies hesitate to take. As a result, the number of NGN investment programs has been declining as many telecommunications incumbents continue to postpone rollouts.

MAKING A CHANGE

Against this backdrop, incumbents increasingly require support in analyzing Technical Service functions and realizing further savings without turning to a full NGN rollout. Unfortunately, many management teams continue to struggle to achieve transparency in Technical Service. Efforts to implement methods that gauge performance beyond the traditional global KPIs are rare. Furthermore, the specifics of innovative services such as IPTV and VoIP inhibit further transparency. Due to complexity and ambiguity, the proper root causes remain undetected, and a structure to properly code the incidents in the troubleshooting system is lacking. To overcome these challenges and to meet the need of analyzing and optimizing the Technical Service function, Oliver Wyman has developed and repeatedly successfully applied a structured approach that draws on root-cause analyses and transparency, and helps to realize significant improvements.

PUTTING IT TO THE TEST

Discussions with incumbents have revealed that many operators do not keep a consistent, coherent database for reporting and root-cause analyses. Instead, data is often stored in multiple trouble-ticketing systems with little regard for gaining an end-to-end overview of individual cases. For example, if technical hotline employees and field employees working on the same case do not record data points using similar codes, this leads to inconsistent tracking of the subsequent actions taken on a specific case. This becomes an even bigger issue when the case involves more complex services, such as IPTV technology, for which the technology delivery chain spans multiple organizational departments and technical platforms – from television headend to customer premises equipment (CPE). This disorganization and lack of consistency makes it impossible to perform a structured root-cause analysis. Furthermore, the lack of transparency prevents continuous improvement, resulting in inevitable and repeated errors.

The renovation of these ailing technical-service processes begins with an assessment of a company's current situation. In concrete terms, this means conducting interviews with technicians, engineers, and dispatchers as well as visiting call centers and accompanying technicians in the field. It also includes mapping installation and repair processes, including IT support systems, which cover network documentation, ticketing systems, troubleshooting expert systems, diagnosis systems and performance benchmarks on the basis of technical KPIs. In addition to perfunctory mapping and tracking, Oliver Wyman collects a random, statistically representative sample of 500 to 1,500 tickets with which it conducts a structured questionnaire over a period of six to eight weeks. These questions, which are tailored to reflect each operator's specific situation, delve deeper into the specific steps taken during fault resolution and provisioning. In conducting the survey, it is essential for participating employees to be adequately informed of what will be expected of them, and to be given enough time to complete the required documentation. To further ensure quality, the collected data is counterchecked and

discussed by a "quality-assurance team" comprised of senior process experts along the entire procedural and delivery chains. The final results ultimately serve as tangible evidence of hypotheses and can also reveal unforeseen bottleneck triggers and process inefficiencies.

The results of these in-depth sample analyses often uncover a number of surprises that could not have been traced in a paper trail. After working with a number of clients, Oliver Wyman has identified common issues: Actual performance within the sample tends to fall significantly below reported levels, indicating that KPIs are adjusted to compensate for weaker numbers. KPI tracking is not the only measure not being fully leveraged among troubled telecommunications companies, though. Most incumbents do have adequate diagnostic tools and automation potentials in place, but either no one is in charge of managing them, or the people who are in charge lack the knowledge or time to effectively utilize them. This issue of time management also heavily impacts the success rate of remote resolutions, which varies according to workload. For example, technical hotlines tend to direct difficult calls to colleagues in the field in order to increase their turnover speed. This ultimately causes a backlog of tasks for technicians, especially, for instance, on Friday afternoons. Targets that aim to minimize call times encourage this practice, whereas attempts to solve more tickets with longer calls would result in a better remote-error resolution rate. Even with longer call time, remote resolution generates only 4-8% of the costs of an average field visit.

To complicate matters even further, a surprisingly large number of customer-reported issues mysteriously resolve themselves or disappear, according to data gathered by Oliver Wyman. More common with 2P and 3P products, these "phantom failures" make it difficult to compile an effective system for diagnosing future issues or streamline solutions even if such procedures exist. When technical errors can be pinpointed, the range of causes has proved narrower than expected, and disruptions can be assigned to distinct error sources. Performance levels, however, vary widely among teams and individual employees, especially in connection with new products.

These assessments often indicate that errors stem from departments outside of technical service. When highspeed DSL is sold for lines of inadequate quality, for example, or maintenance windows are missed in the network department, problems emerge that could have been avoided with compliant practices. An additional problem area emerges from outsourcing field forces, which has been shown to correlate with low automation levels and remote-repair and remote-installation rates. Such findings indicate that third-party technicians cannot be relied upon to meet targets for error reduction and cost reduction. Overall, Oliver Wyman has found that actual processes diverge considerably from officially documented ones, even varying among teams and individual technicians, compounding the challenge of identifying the significant uncodified expertise that exists within the organization.

ACTIONABLE AND SUSTAINABLE IMPROVEMENTS

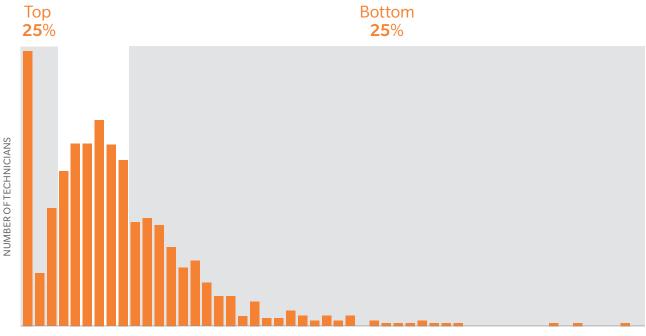
Once all the assessments and root-cause analyses have been completed and sufficient transparency

has been achieved, it's time for the final stage: developing long-term solutions. Working with a team of technical experts at the client, solutions are framed around the areas of network stability, behavior and performance management, and process management and organization.

NETWORK STABILITY

Increasing network stability reflects the most concrete goal of the three solution areas: improving MTBA for mass-market products. One way to achieve this involves eliminating sources of error. This might include replacing or updating particularly error-prone components, configurations, or software. Oliver Wyman also concentrates on improving line documentation and network inventory as well as revising the product design in order to minimize problems at the customer level. Such measures may include ensuring that a physical network connection is retained for churners for at least three months, improving self-installation manuals, introducing plug & play modems and extending tolerance levels to reduce installation errors. Ideally, these actions

EXHIBIT 4: DISTRIBUTION OF REWORK RATE AMONG TECHNICIANS



REWORK RATE

would be supported by a maintenance strategy based on correlation analysis and indispensability of equipment as well as a more targeted, proactive maintenance approach.

Once problems do occur, however, streamlined diagnostic and enhanced network-monitoring processes that cover all active components ensure swift, lasting solutions. Streamlined diagnostic processes, for example, could enable operators to more precisely locate an error – whether in a cabinet, main distribution frame or CPE – from a remote location. In countries where theft of copper poses a serious problem, introducing antitheft measures such as forensic tagging or alarms is a necessary measure for improving network stability. Some regions may even benefit from focused investments to retire old infrastructure altogether and replace them with mobile-connectivity alternatives.

BEHAVIOR AND PERFORMANCE MANAGEMENT

Making improvements to human behavior poses more of a challenge. Oliver Wyman generally pursues two goals in this area: eliminating performance differences, and improving performance averages. As a primary measure, fixed-line operators need to encourage transparency. This means that tickets must be assigned to the specific technicians involved as a way of tracking their involvement. This facilitates focused feedback from positive and negative cases and improved performance monitoring throughout all process steps. The transparency gained in these practices must be linked to clear performance-management guidelines, including clearly communicated consequences. These subsequent measures could take the form of targeted reskilling measures, such as regular regualification certification for all technical field-force staff.

Furthermore, it is important to introduce stronger performance-based compensation consisting of monetary and nonmonetary rewards for extraordinary performance, which should also play a key role promotion decisions. In addition, incumbents need to ensure that all critical technical information, including

prequalification of errors, has been gathered and all checks have been performed by the appropriate technicians and hotline operators before a ticket can be closed or forwarded. Such safeguards might involve implementing system checks or final checks with the customer. Last but not least, the introduction of flexible working hours is necessary to better manage peak volumes, particularly during such recognized trigger times as thunderstorm season.

PROCESS MANAGEMENT AND ORGANIZATION

Because many root causes are not generated by the technical service department, focus is placed on clearly defining responsibilities to ensure stronger end-to-end collaboration. By harmonizing ticketing systems, error coding, handoffs, KPIs and incentives across all critical departments, Oliver Wyman establishes an end-toend view of the entire process chain and, thereby, a strong foundation for continuous improvement. This is further bolstered by improvements to the definition of "production-ready" orders in cooperation with sales departments. As a rule, error-resolution processes run more efficiently when employees in technical call centers are incentivized to achieve "first time right" or "first-call resolution" KPIs rather than focus solely on call time. In some cases, it might even be appropriate to merge the technical hotline and field force to ensure end-to-end responsibility for full costs and to avoid conflicting targets.

Ideally, this streamlining would also extend to outsourcers, whom Oliver Wyman advocates holding to tighter service-level agreements, better tracking and more stringent success requirements in the future. This implies especially an innovative compensation model incentivizing outsourcing partners to reduce volumes to help increase automation and a vendor-selection process that avoids becoming increasingly dependent on the outsourcing partner. In addition, setting up technical data marts for more complex services, such as IPTV, leads to substantial benefits created by correlating quality-of-service and quality-of-experience indicators with events and conditions in the technical delivery chain. This ultimately eliminates root causes and error sources.

Further automation could take the form of interactive voice response, remote configuration, Internet-based diagnostic tools, or even GPS-based workforce management systems that use skill-based logic to dispatch the appropriate field force from a limited number of dispatch centers, thereby minimizing driving and idle time. On a larger scale, automatic correlation analysis could detect mass failures early and appropriately manage them throughout the organization. Overall, standardized terminology and improved communication will enhance the entire technical service team's ability to detect potential issues sooner and apply the appropriate solution.

THE FINAL TOUCHES

Throughout these implementation phases, it is important to avoid badly planned changes that can lead to immediate and negative customer reactions. In the past, some clients have tried to implement a subset of the ideas described above and failed due to internal and external resistance as well as a lack of proper change management. Oliver Wyman therefore advises its clients to begin by rolling out pilots whenever possible. Only when test modifications have proved successful and the parameters for effective communication and training are in place is it safe to move into national modifications. To further ensure a successful implementation, it is best to establish incentives that team leaders can strive toward while successfully implementing various elements.

Even once these requirements are in place, the process isn't over for Oliver Wyman – the overhaul's effectiveness is measured in subsequent progress audits to make sure that measures are actually put into practice and produce the desired results.



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SUCCESSFUL IT TRANS-FORMATION

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Thomas Nachtwey

The telecommunications industry is being hit from many sides these days. Companies struggle to systematically transform themselves in line with simple and "lean" operator models to address the challenges of digitalization in an increasingly competitive environment. In coping with the transformation requirements regarding processes, systems, skills and capabilities, IT is facing two major challenges:

First, Oliver Wyman's International Telecommunications Benchmark (ITB) shows that during the past five years, the ratio of IT costs to revenue among Europe's major telecommunications incumbents has risen in an environment of stagnating or declining revenues.

Second, the demands from the respective business divisions have intensified. IT departments are required to implement more change requests with the same resources and budget, to speed up the implementation of new tariff options or to continuously bolster online sales and service channels by delivering new capabilities.

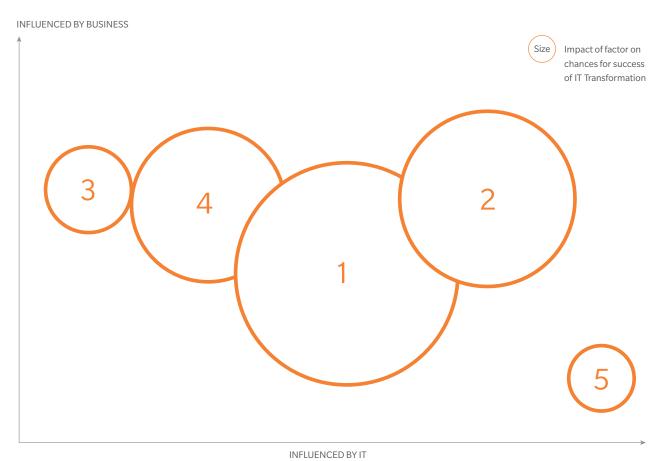
Moving forward, all signs indicate that the needs of business divisions will continue to grow, creating an ongoing challenge for IT departments.

FIVE FACTORS INFLUENCING THE SUCCESS OF IT TRANSFORMATIONS

Large numbers of telecommunications companies have already stepped up and tried to seal the expanding breach between the needs of business divisions and the perceived performance of IT departments by launching far-reaching IT transformation programs. But these programs have generally been only partially successful. The reasons for this range from unfilled business payoffs to canceled IT programs whose sunk costs exceeded the

profitability improvements that were initially envisioned. Based on the wide range of programs that Oliver Wyman has seen, a recurring pattern was identified: Operators frequently selected a transformation approach that did not best facilitate the success of the IT transformation. In order to increase the degree of future success and to implement an IT transformation that will truly pay off, this article will focus on three points: the frequent reasons that influence the success of the programs, an approach that pinpoints the best method of transformation and fundamental success factors for each selected approach.

EXHIBIT 1: FIVE FACTORS INFLUENCING THE SUCCESS OF IT TRANSFORMATIONS



Synchronization with product reality

4. Avoidance of old complexity in new processes and systems

2 Business-driven transformation

5 Creation of incentives for participating vendors 3 Sufficient decision-making power

Synchronization with product reality Many transformation programs are viewed as big bang projects that stretch over three years to five years. IT departments set out to conduct these programs in tandem with daily business operations and to put old systems out to pasture once the new stacks are ready and data has been successfully migrated. In such approaches, the business division itself frequently gets "lost" along the way, often because new products, services and competitive conditions cause the needs of the business divisions to change at the drop of a hat. This makes defining set timeframes impractical, particularly due to the fact that this kind of approach is unlikely to generate useful, measurable interim results. One concrete example: Years of diligent attempts to develop a central product catalogue that could display price options on the basis of various factors were rendered useless once flat-rate options came along.

Business-driven transformation

For years, most programs were launched solely as IT-based transformation programs
(like the installation of new BSS/OSS system stacks). It was not common to drive IT transformations as part of a greater business transformation that sought to find a common solution for achieving business objectives. One example seen in the past involved the improvement of the deployment process handled through the call center: IT set out to reduce the number of technical queries when obtaining customer location data. But established procedures and unclear areas of responsibility prevented the business division from signing off on modifications to the customer order-capture process. In the end, the efficiency-boosting potential remained untapped.

Sufficient decision-making power
Frequently, telecommunications companies
underestimate the effort that goes into creating
an effective transformation management system. They
often treat IT transformations like a black box and limit
their focus to IT program management, which prevents
sufficient amounts of management and divisional
decision-making power from being integrated into the
transformation program. Critical project roles are

assigned to employees who lack the knowledge and decision-making authority necessary to anticipate and represent the needs of the business. The time spent briefing them in these areas results in costly delays and poor decisions. In an IT transformation, this may translate into inexperienced employees being asked to select which legacy price plans should be migrated. Plagued by doubt or uncertainty, these employees might decide that "no migration is possible."

Avoidance of old complexity in new processes and systems

In many cases, the complexity already permeating company operations is simply copied into the new systems. During the specification phase of a transformation program, the business division will demand the exact mirroring of pre-existing, sometimes outdated functions in addition to the mapping of new functions. This may be compounded by insufficient focus on proven industry standards and little effort to consciously drop obsolete functions. At one marketleading telecommunications company in Europe, Oliver Wyman witnessed how complex old rates used by just a subset of active customers were copied in a time-consuming process. No attempt was made to use the transformation program as an opportunity to discard these remnants of the past or to address the related IT maintenance efforts, new investments in the target system and additional process costs.

Creation of incentives for participating vendors

Friction frequently occurs when an excessively large number of different vendors are involved in a project. Furthermore, the vendors lack incentive to complete a transformation program quickly as long as they are held to effort-based contracts rather than performance-based agreements. This leads to budget overruns and overworked project teams who only have time to focus on the absolutely necessary tasks. Managing the essence of the transformation program takes a lower priority.

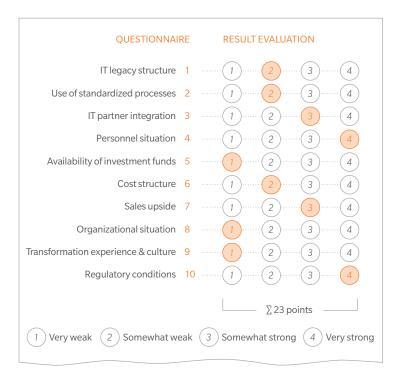
DE-RISKING IT TRANSFORMATION

Over the years, Oliver Wyman has learned that one key to a successful transformation program is a systematic analysis of the degree of freedom available to each respective operator. This analysis must be conducted before the program is launched. Oliver Wyman refers to it as the "dance-floor concept" (see Exhibit 2). An analysis depicting the boundaries of the dance floor helps operators visualize the possible leeway for a transformation. The dance-floor assessment is broken down into 10 segments:

- IT legacy structure: Have complex existing legacy systems been successfully replaced in the past?
- Use of standardized processes: To what extent are eTOM processes used in customer-facing processes and are the ITIL processes used in service management? Which processes are already receiving automated support?
- IT partner integration: How much experience does the company have with vendor management? Are strategic vendors and partners active in areas that are relevant to the transformation program?

- Personnel situation: How available is key qualified personnel in the affected business divisions and the IT department?
- Availability of investment funds: How available is CAPEX in the current financial year and the two subsequent financial years? Is a freeze expected or is the company carrying out a cost-optimization program that will also reduce the amount of money for capital expenditures? Are short-range cashoptimization guidelines expected to be issued by headquarters?
- Cost structure: How does the company's current cost base measure up to competitors' and, as a result, how large is the possible efficiency boost generated by the transformation program?
- Sales upside: How high could the transformation push sales? How realistic is this in the current market?
- Organizational situation: How much autonomy does the company have to plan a transformation project on its own, approve it and launch it? How centrally can management be performed by the divisions involved in the program?

EXHIBIT 2: EXAMPLE OF A DANCE FLOOR







- Transformation experience and culture: What sort of track record does the operator have for successful IT implementations? How extensive are the company's change culture and capacity for innovation?
- Regulatory conditions: How willing is the company to talk to regulators about certain aspects of the transformation, including modifications of performance and rate calculations? What are the chances that regulators will approve the requested changes?

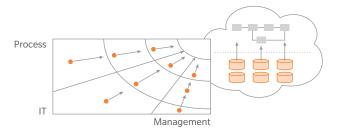
On the basis of the in-depth operator interviews conducted within the framework of these questions and related scoring of received information, Oliver Wyman is able to determine the size of the dance floor.

WHAT STEPS SHOULD BE TAKEN ON THE DANCE FLOOR?

Depending on the size of the identified dance floor, three typical approaches can be developed. They each facilitate a successful IT transformation – but in different ways.

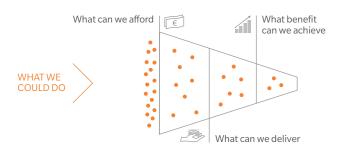
Continuous transformation

In the first approach, the transformation occurs in a sequence of many small steps instead of one fell swoop as a result of an assessment – this results in a small dance floor. The transformation program takes on the features of a continuous improvement process in which optimization potential is constantly pinpointed, evaluated and tapped. To the greatest extent possible, change needs are addressed by using standardized processes like demand and release management. Because continuous improvement requires a high degree of continuity and discipline, this type of transformation should not be viewed as a routine business operation. Our experience shows that three rules must be kept in mind:



Identify the long-range goal: This must be defined even with restricted leeway and provides the only way to uniformly set and prioritize the small steps.

The objective is to develop a joint IT and business vision, not specific system improvements or goals for each. This vision should focus on reaching a common understanding of processes, management and systems.



Prioritize transformation issues in daily business:

Repetitive transformation steps must be clearly prioritized according to their program contribution and classification. Subsequent steps would be carried out as "mini-projects." One critical aspect of this work is to create a central coordination unit that will keep its eye on the forest amid the many saplings of implementation projects being carried out.



Continuously back up framework transformation conditions: A long-term transformation program carried out in many small steps requires a high level of dedication and a central goal. It is simply not enough to recognize the need for a transformation program once, to undertake doable improvement steps and then move on to a new set of issues. By providing management with a monthly progress update, for example, the many small improvements can be seen within a shared context.

Evolutionary transformation

This approach turns requirements into transformation bundles and prioritizes them. These bundles are then carried out in succession rather than in one sudden company-wide change. This approach is particularly suited for companies with midsized dance floors. The fundamental rules of this evolutionary concept are:

LEVEL OF COMPETITION Sales process Billing process Service process

TRANSFORMATION JOURNEY

Service Billing Sales ...

Company benefit

Employee benefit

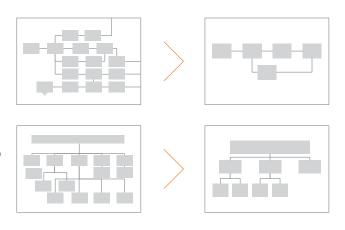
Customer benefit

Develop transformation bundles: The first key requirement for an evolutionary transformation program is to define discernible bundles, which could include cross-divisional improvements in customer processes. Other options include bundling of individual products or functions. A dedicated program team should handle the conception and implementation work as well as tackle the transformation bundle in periods of six to 12 months without slowing down daily business operations.

Achieve measurable business benefits for each transformation bundle: Measurable benefits should be assigned to each bundle. These benefits must be quantifiable and recognizable for business segments and in some cases even for the end customer. As part of this work, the perspectives of IT and the business division should be condensed into a single case. The success indicators/KPIs contained in this summary should be aligned with the priorities of the business divisions and should lay down specific, measurable improvements for each transformation bundle. Pure IT KPIs, like CRM maintenance costs, should not play a major role here.

OPERATIONS EXCELLENCE

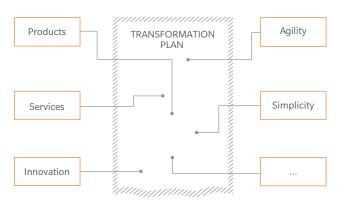
Develop new ways of thinking in the transformation bundle: A sustainably successful transformation program must do more than just work down a laundry list of transformation bundles and hone in on business benefits. Another vital requirement is to develop a new way of thinking within the bundles themselves. The old ways must be questioned, and the project team should delve into such issues as why a separate process needs to be set aside for every customer segment. Oliver Wyman has demonstrated in its work that this approach produces sensible, useful methods for executing transformation bundles because small process changes alone generally have very little financial impact.



Business change program

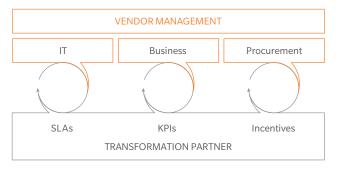
In contrast to the evolutionary process, this concept involves a sweeping, one-step transformation. Typically, such a program lasts at least three to five years and embraces all functions within a company, processes and IT systems. The keys to its success lie in a high degree of decision-making freedom and a commitment to the transformation process conducted on a relatively large dance floor. The three fundamental rules of this process are:

Employ a "zero-based" transformation goal: The high level of decision-making freedom uncovered by the dance-floor analysis should serve as the motivating force to achieve fundamental change. In this case, work literally begins with a blank sheet of paper and a number of fundamental questions: How should we position ourselves to achieve maximum efficiency while, at the very least, maintaining our present level of customer satisfaction? And what is keeping us from minimizing the customization of available standard solutions? To fully exploit the opportunity for revolutionary change, these questions must be asked over and over again.



PARALLEL EXECUTION





Deliver interim success: Given the length of the transformation program, prompt and regular delivery of tangible successes is essential. These interim steps, which can be reported every six months, may indeed cause development costs to rise. But the benefits arising from the reduction of transformation risks far outweigh these extra costs. The resulting cascade of positive developments will begin with such things as the early use of new functions and ultimately lead to a higher degree of transparency and a continuous confirmation of the transformation program's ability to deliver. These gains will subsequently reinforce cross-divisional support for the entire effort.

Integrate transformation partner: The success of scaling resources and know-how that is required by a comprehensive business change program hinges on the appropriate assimilation of a transformation partner into the process. One aspect of this approach is to create a strict vendor interface that focuses on performance management. Above all, though, the incentive package for the transformation partner must be intelligently drawn up. In essence, the partner must have a vested interest in delivering results on time, on budget and of high quality as well as in achieving long-range reductions in IT costs. The result: increased transparency of supplier services and the chance to slash the total costs of the transformation program throughout the project's life.



CASE STUDY

IT TRANSFORMATION AT OPERATORS FACING THE FIXED/MOBILE INTEGRATION CHALLENGE

In recent years, many operators have followed a strategy of offering convergent products to their residential and business customers. Some operators who followed this strategy of "all services from one supplier" have used the new positioning as a way to reinvent themselves by creating new brand positioning and establishing brand promises of "simplicity," "easy interaction", superior customer experiences and lean go-to-market structures.

Flipping the perspective, reality within these operations often diverges from this ideal. Although convincing in branding and go-to-market, many operators have struggled to master the next logical, necessary step of back-end integration. Behind the fixed/mobile facade, there are often two companies operating, working together with a good number of workarounds or intermediate solutions using old disjoined structures. Today, these operators are still dealing with such issues as:

- Separate and heterogeneous product structures that are not prepared to handle real converged, modular offers for creating an amazing customer experience
- The unsolved issue of the future, unified customer data structure, which should enable two-way crossand upselling between the individual and other members of his or her family or household
- Several variants of customer-facing processes, supported by a good number of fixed and mobile IT stacks and systems, as well as unclear responsibilities and non-harmonized structures
- Limited flexibility in IT architectures to support the specific demands of multichannel client services in sales and service or customer value-oriented selling

 Significant back-office overhead maintaining and supporting parallel, duplicate processes (e.g. bill creation, collections and management of numbers and SIM cards)

The reasons why many operators have not yet mastered this challenge and taken this "obvious" next step are manifold: Precedence is instead given to assigning higher and more short-term priorities for the development of marketable products and services or to fulfilling the requirements of urgent topics like successful multichannel management and online shifts as well as the migration of customers to IP infrastructures, just to name a few factors. The list of burning issues that today's operators and their respective IT teams are expected to support and deliver – ideally in parallel – continues to expand. Many times operators have failed to find the right approach to master this variety of fundamental changes while securing the investments and capacity necessary to complete the fixed/mobile integration.

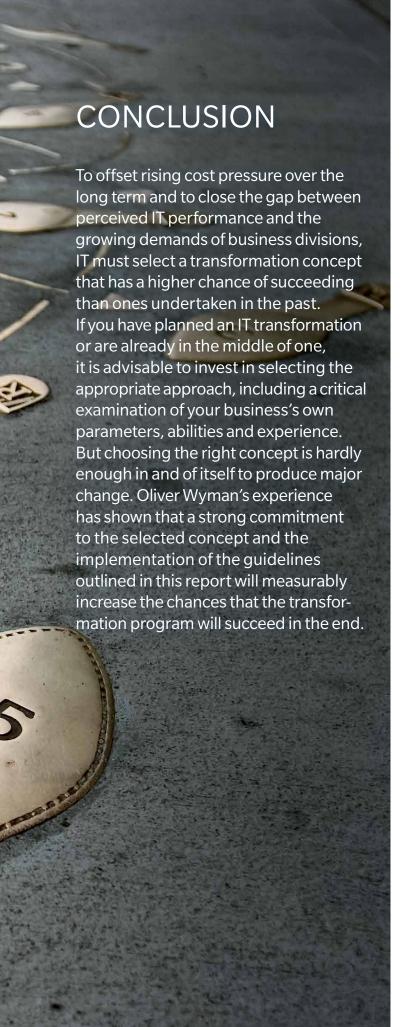
Large change programs often veer off course when it comes to adhering to the requirements of freezing developments on the market and product-development side or fulfilling the request to double IT spending for developing existing systems in line with the future greenfield target application landscape.

Because of these trends, several recent Oliver Wyman clients have decided to take the evolutionary approach. A key aspect of this approach involved performing the transformation of one customer-facing process at a time to ensure a fundamental, end-to-end optimization. Based on the importance of the service processes (determined by total costs and service volumes as well as the high proportion of external workforce), this process is often chosen as a starting point.

CASE STUDY

Following this approach, these operators have proven themselves capable of living up to their brand promise of simplicity and lean convergent operations. Step-bystep consolidation of IT systems and structures led to shorter time-to-market periods (20–40% decrease) and fewer costs for launching new campaigns and products (50–75% decrease per campaign). In addition, they also resulted in a higher degree of automation by eliminating workarounds between fixed and mobile

processes (20–30% increase) as well as a significant step toward a higher degree of online share in sales and service by laying the foundation for a new customer interaction model in parallel to integrating the back-end process (50%–100% increase). Overall, a 15–25% reduction of the process costs and the realization of IT savings in the range of 10–30% have proven to be realistically achievable in a timeframe of three to five years.



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UNLOCKING FURTHER POTENTIAL AND ENSURING ACTUAL FINANCIAL IMPACT

Telecom operators are facing strong financial pressures due to shrinking commercial margins and rising operating costs and investment demands.

As in other industries. telecom operators have put in place procurement departments to obtain significant savings through negotiation and panel rationalization. External spending - OPEX and CAPEX - is a major component of the cost base, accounting for up to 40% of revenues, and can often be leveraged during difficult times However, in the face of more diversified and complex purchasing portfolios, more concentrated supplier markets and faster technological shifts, traditional sourcing optimization initiatives seem to be reaching their limit. Today, very few operators have successfully boosted purchasing performance through more sophisticated approaches on a large scale.

INCREASE OF THE PROCUREMENT VALUE

Emmanuel Amiot Laurent Guerry Corentin Gaillard

Reaching the full potential of sourcing optimization requires going beyond traditional negotiations, obvious panel consolidations, and basic supplier management. Successful companies develop cross-functional collaboration between buyers and various business stakeholders, and their procurement departments are involved in the early stages of specifications design to enable total cost perspective and determine best suppliers' relationship models. Most importantly, savings generated need to be integrated in the budgeting process to ensure credible impact.

When successfully executed, this proposition can yield up to 400+ basis points in cash flow for telecom operators. Optimized procurement also generates significant side benefits such as improved risk management and identification of faster growth opportunities through enhanced supplier relationships.

PROCUREMENT: A STRATEGIC LEVER TO MAINTAIN PROFITABILITY FOR TELECOM OPERATORS

Telecommunications operators are facing significant financial pressures. On one hand, they have never experienced such a decline in revenues, a trend that is here to stay. On the other hand, there is a clear need to continue investing in network development and new services within a highly regulated environment.

In this context, external spending optimization is a strategic lever to ensure profitability. As external spending can account for around 40% of revenues, saving just 5–10% means 200 to 400 additional basis points of EBITDA.

In more mature markets where revenue growth began to stagnate a couple of years ago, most operators have already engaged in procurement cost optimization initiatives. In fast-growing markets, operators are strengthening procurement capabilities to support rapid expansion and prepare for when business conditions

worsen. Whatever the context, basic procurement strategies and levers are no longer effective.

Indeed, the procurement environment has become more and more complex in the past years:

- Purchasing portfolios of operators have become increasingly diverse. They have evolved from relatively simple network elements (e.g., switches and routers) to a much wider array of products and services (e.g., software, maintenance, full solutions, TV content, set-top boxes and IT equipment for resale).
- Technologies are more complex, and technological shifts are very rapid, requiring operators to be flexible and react quickly. Suppliers' markets dynamics are changing, and telecom operators are now dealing with industries with low profit levels. Traditional vendors like AlcatelLucent and Ericsson have seen significant drops in their margins, due to fierce competition from new players like Huawei or ZTE. In the handset arena, Apple and Samsung have captured a major part of the value, leaving only a very small share of the profit to others.

EXHIBIT 1: APPLICATION OF THREE MAIN MACRO LEVERS

	•	Buy cheaper: Leverage advanced procurement levers*	Spend smarter: Apply products and services reengineering**	Optimize value: Increase profitability in buy for resale***	
	Hardware		•		_
Network	Services, Software				
	Hardware		•		_
IT	Services, Software				
Devices			•	•	
ICT services				•	 Levers generally applied – to be further leveraged
TV content				•	where relevant
Marketing services	5			•	Levers partially
Corporate services	3		•		applied – to be investigated in priority

 $^{^{\}star}\, \text{Unit price reduction, supplier panel consolidation, advanced supplier relationship management,} \dots$

 $^{{\}tt **Specifications\ right\ sizing,\ redesign\ to\ cost\ and\ TCO/process\ optimization,\ consumption\ policy\ review, \dots}$

^{***} Offer profitability improvement, customer investments optimization, ...

In this context, telecom operators need to shift gears in terms of procurement optimization through advanced practices, products and services redesign, and margin engineering on resale. It is also critical to obtain savings integration in budgets in the finance department. This requires overcoming existing silos between procurement and other parts of the company.

THREE KEY LEVERS TO UNLOCK VALUE

For a telecom operator, the purchasing portfolio typically covers seven major spending areas. According to their respective maturity levels, operators can apply three main macro levers:

Buy cheaper: Leverage advanced procurement levers

Over the past 10 years, most operators have taken measures to upgrade their procurement capabilities. However, in an increasingly complex environment, mature companies are taking traditional procurement practices one step further to optimize their TCO (Total Cost of Ownership) and capture more margins from supplier markets, as illustrated through the following examples.

Work 2

Work 1

Work 3

Work 4

Mobile access network deals

Some emerging vendors have offered very aggressive entry deals to gain market share, applying a "razor-blade" strategy. In many cases, some "great" deals actually turn out to be more expensive than expected. Indeed, precise network deployment scenarios, deep technical understanding and robust modeling (e.g. through an "image network" methodology enabling apple-to-apple comparisons or advanced benchmarking of deals and frame agreements) are critical to avoid pitfalls, align on best prices and maintain bargaining power.

A clear sourcing strategy is essential. A "buy-as-you-grow" model supported by a robust technical roadmap could end up being more efficient than a poorly planned multiyear volume commitment strategy. In short, procurement strategies must always be considered from a TCO perspective.

Field operations

Despite a significant part of labor-related costs, recent achievements have demonstrated that significant savings can still be obtained by consolidating the supplier panel and optimizing unitary prices through supplier cost structure analysis. Best practices also allow for further cost reduction and increased quality by reviewing key processes with suppliers (e.g., new FTTH and multi-technology deployment process, increased

EXHIBIT 2: FIELD OPERATIONS - SUPPLIER PANEL REVAMPING CAN PROVIDE SIGNIFICANT OPPORTUNITIES

CIVIL WORKS PROVIDERS PRICE SPREAD vs. INCUMBENT PRICE SPREAD 20 Less competitive offers INCUMBENT Aore competitive offers -40

Work 5

Work 6

Work 7

Work 8

EXHIBIT 3: HANDSETS - IMPROVE NEGOTIATION PREPARATION THROUGH ABSOLUTE BENCHMARKING

ABSOLUTE DYNAMIC MARKET-PRICE BENCHMARK

SUPPLIER	MODEL	PURCHASE PRICE IN €	GERMANY	UK	FRANCE	ITALY	SPAIN	
	Golf	140	•	•		•		
HTC	OneS	300	•	•	•	•	•	Device not sold Purchase price lower than best price Purchase price higher than best price Purchase price higher than price average
	Handset X1	380	•	•	•	•	•	
Nokia	Lumia 610 NFC	160	•		•	•		
	Lumia 800	300	•	•		•		
	Handset Y1	254	•	•		•	•	
	Handset Y2	92	•	•	•	•	•	
RIM	Armstrong	130	•		•			
	Handset Z1	230	•	•	•	•	•	
	Handset Z2	320	•	•	•	•	•	
Sony	Nypon	245	•		•	•	•	
	Handset W1	313	•	•	•	•	•	
	Handset W2	150	•	•	•	•	•	

focus of dispatch by sending expensive splicers only when needed). They also seek out continuous functional specifications simplification by aligning processes across technologies and products and by better adapting SLAs to value.

Software applications

Traditional Sourcing levers such as daily rate negotiations and offshoring development bring limited savings and are complex to implement in scattered application footprints. Supplier panel consolidation per application domains (usually from three to eight) can bring savings up to 30% from implied process simplifications such as decreased pre-integration work, avoided duplications between operator and vendors and reduced workload on tests. Such thorough review allows for make-or-buy optimization and the development of strategic supplier management.

Handsets

Supplier market is difficult to address from a strict procurement perspective as some manufacturers struggle with reduced or negative margins, while a few others leverage leading positions to impose their conditions. Taking a broader perspective of costs helps activate levers such as ongoing net price alignment on best market conditions and advanced forecast and ordering management to improve supplier-demand visibility.

Spend smarter: Apply products & services reengineering

A large part of telecom operator's purchases is made of projects with lifetimes spanning several years (e.g., network and set-top boxes). Choices in terms of functional requirements and technical specifications therefore need to be optimized from the outset and, when possible, regularly challenged. Procurement departments play a key role in value engineering for telecom operators, just as they have done for years in more advanced industries like automotive.

Network

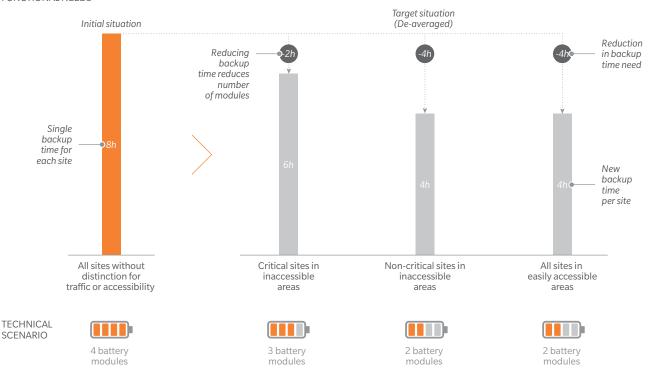
On the structural part of the network, specifications can only be influenced at the initial design stage. Strong upfront collaboration with suppliers in the design phase, sound demand planning, and understanding of the



EXHIBIT 4: VALUE ANALYSIS AND VALUE ENGINEERING ON MOBILE SITES BACK-UP POWER SYSTEM

BACK-UP TIME AND BATTERY MODULE EVOLUTION

FUNCTIONAL NEEDS



"on the field" usage allow for right-sizing of network requirements. Leaders in this domain manage to build a clear vision on the expected service level and strike the right balance between business objectives, engineering constraints, and sourcing requirements. Other network components (e.g., batteries, HVAC) are also optimized through value analysis and value engineering in a TCO perspective. For example, some operators have deployed one unique battery per site instead of one per service or adapting the power level to the exact needs of the site. Operators managing multi-geo networks can also leverage feedback from previously deployed countries to optimize deployment specifications in the others.

Set-top boxes

In a segment where components' prices are decreasing and the supplier market offers a reasonable number of alternatives, finding the right supplier and negotiating the right terms usually yields good initial results. There

is, however, more to achieve by actively working on the product range, developing entry-market simplified boxes and ones without hard drives, for example, and aligning box releases with market cycles to benefit from electronic components' price decreases.

Optimize value: Increase profitability in buy-for-resale

Some purchased products and services are meant to be resold. Buy-for-resale mechanisms leave little room for price negotiation, making it critical for operators to optimize value (costs vs. revenues) to improve their margins.

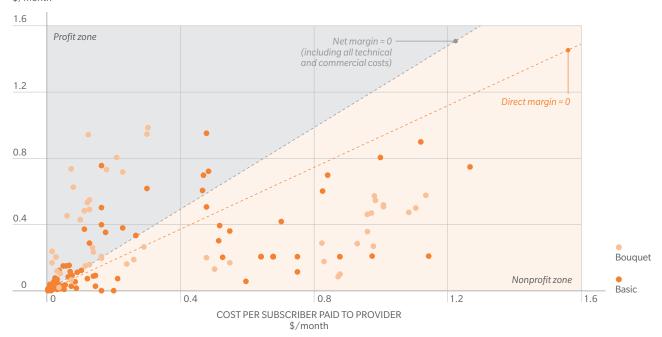
Customer Premises Equipment (CPE)

Subscriber Acquisition Costs (SAC) and Subscriber Retention Costs (SRC) can massively deteriorate margins if not managed tightly. Optimization requires:

EXHIBIT 5: TV CONTENT - TV OFFER MARGIN OPTIMIZATION

TV CHANNEL PROFITABILITY ANALYSIS

REVENUE PER SUBSCRIBER \$/month



- A scientific understanding of customer behaviors (e.g., segments, price and choice elasticity) to identify best return on investment opportunities,
- 2. The ability to handle big data,
- 3. The implementation of decision support tools to make right choices on a day-to-day basis.

ICT Services

Equipment, which accounts for 40 to 60% of total costs, is often selected by clients and purchased on their terms. As a consequence, purchasing price or specifications are rarely influenced. In-depth deal and client-margin analysis allow the optimization of sourcing channels (e.g., reducing broker usage by improved order planning) and service costs (e.g., leveraging own spare parts to avoid back-to-back reinsurance) or the improvement of service-delivery efficiency (e.g., team specialization and training).

TV Content

The challenge for telecom operators who have developed a TV offer now lies in increasing or maintaining profitability once market share is established. The first step consists of moving from a pay-per-viewer cost model, generally used at the development stage to avoid the burden of fixed costs, to a fixed-fee model. The second step aims to optimize ROI using analytical techniques to calculate individual margin per channel. Then, the last step is about understanding the true value of content, assessing its impact on acquisition or churn, based on quantitative, in-depth customer studies. This supports the decision to prune or replace unprofitable channels and develop indisputable negotiation arguments to increase profitability.

HOW TO MAKE IT HAPPEN: ACCURATE MEASUREMENT OF FINANCIAL IMPACT IS CRITICAL

Most CFOs recognize that they struggle to reconcile savings from external spending and what they see in the books. This is even more difficult for telecom operators for whom a large part of the overall stakes is not year-on-year spending (CAPEX, project-driven expenses). However, in the context of increasing pressure on margins, it is now critical to demonstrate the actual and accurate impact of procurement initiatives.

Usually, savings are not properly integrated in budgets, resulting in frequent "consumption" of the cash and, ultimately, a massive decrease in the actual net financial impact.

A cross-functional approach based on pragmatic principles guarantees the impact of procurement initiatives:

 Have procurement and business stakeholders define and agree on comprehensive, yet simple saving calculation rules.

- 2. Build a budget spending baseline by consolidating business needs in an environment characterized by nonrecurring purchases and obsolescence-driven price decrease. For more than any other industry this requires:
 - Implementing a robust "demand plan" process that will capture business requirements at a detailed level in terms of volume and mix at current unit price
 - Giving a sourcing guidance that includes main market-price trends (mostly technology obsolescence) in order to adjust expected unit prices
- 3. Feed and manage a pipeline of actions for which target savings are then integrated into budgets
- 4. Track completion of actions and savings realization to measure procurement performance
- 5. Measure P&L and cash evolution and compare them against savings declared by procurement

Beyond short-term benefits, by finance departments' validating savings increases the commitment of all stakeholders to continuously pursue external spending performance improvement.

CONCLUSION

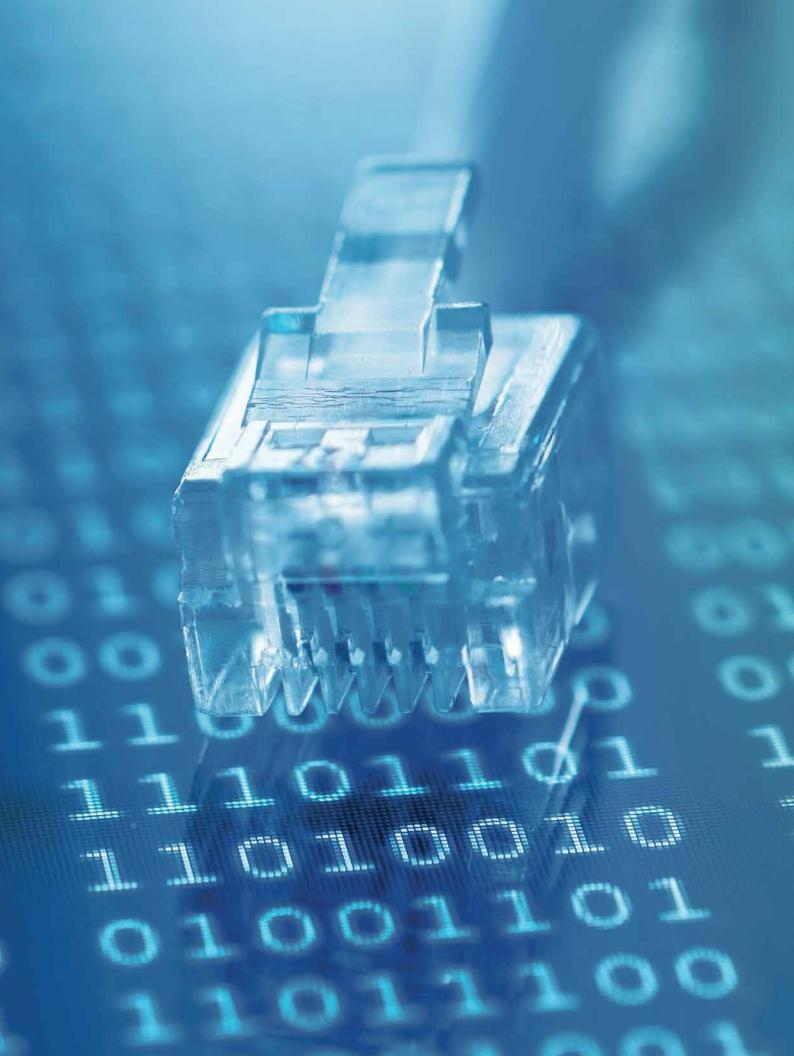
In a context where the scissor-effect undergone by telecom operators shows no signs of going away, leveraging sourcing is a must-do. The good news is that more sophisticated approaches can generate a significant upside and relieve financial pain. The challenge is that in order to produce expected results, these levers need to be embedded in proven methodologies and tools and supported by a holistic operating model.

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A PRACTICAL, DATA-DRIVEN APPROACH FOR GENERATING VALUE

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The telco industry is suffering a period of continued declining growth and increasingly tight margins. To succeed in this challenging environment, many companies have deployed techniques like customer value management (CVM) but with limited success. Recently, to achieve additional substantial gains, the leading telcos have been adopting a more practical, data-driven approach that shortens the feedback cycle of analysis, action, and follow-up measurements. The approach, which focuses on seven specific business levers and is used to address a range of commercial trade-offs, has enabled companies to unlock 100–300 bps of EBITDA within four to six months, with potential gains of up to 700 bps of EBITDA over one to two years.

A NEW APPROACH FOR A CHALLENGING ENVIRONMENT

The telco industry is struggling, with most fixed and wireless operators experiencing declining revenues and decreasing EBITDA. In this tough environment, many executives have experimented with traditional value-management techniques to allocate and balance resources in the optimal ways for driving the best overall ROI for their businesses. Such efforts, however, have often failed to reach their full potential. Indeed, many executives viewed those techniques as too complex for the benefits they brought.

More recently, however, many leading telcos have begun to adopt a much more practical, data-driven approach that focuses on improving the management of the most important business decisions.

The approaches share a common obsession for driving useful results for the business. Data-driven decisionmaking is then embedded in the business process, so that rather than having marketers doing marketing and the business intelligence (BI) group doing analysis, BI is totally embedded in the decision-making process, and both work together to obtain better results through smarter use of data. These leading operators use the shared business understanding to do away with unhelpful precision that adds complexity, and work on evolving their approaches as they unlock value in a gradual way, gaining organization-wide support. In these new approaches, understanding causal relationships is critical to enable decisions to be made with known outcomes. This is particularly important in markets facing structural market changes, such as handset decoupling or subsidy reductions. Finally, these new approaches are much more agile, with much shorter feedback cycles of decision, action, and measurement, enabling executives to keep their decision-making edge up to date.

Technically, the approaches rely on agile development and tools that can be quickly rolled out and improved on the fly, rather than classic IT development, with its long cycles, high costs and limited flexibility to evolve.

Data-driven decision-making thus becomes a business reality that enables the operator to extract more value from each commercial lever, and in doing so make trade-offs across the organization. The approach enables executives to find the optimal growth path for their companies while supporting some of their key strategic decisions.

SEVEN BUSINESS LEVERS

To appreciate how this more practical, data-driven approach works, executives first need to understand its fundamental mechanisms for generating value through seven core commercial operational levers:

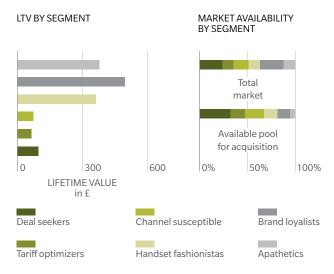
- 1. Customer investment
- 2. Pricing and promotions
- 3. Base management
- 4. Distribution optimization
- 5. Bad debt
- 6. Customer experience/service
- 7. Network infrastructure

Customer investment

Although customer investment is typically the largest operating expenditure (OPEX) item over which telcos have control, only the best operators have made significant advances in reducing it. These bestin-class operators now rely more on hard data when making changes to the subscriber acquisition/retention costs (SAC/SRC). Specifically, they understand the causal drivers of customer decisions and they run regular tests to quantify customers' reactions to any changes in investment levels and hence can more accurately determine the financial implications of such decisions. A 5% increase in acquisition spending relative to competition might, for example, have no benefit in acquisition share (thus driving up only costs), or it may lift share by several points. With respect to retention, the same operators can identify customer groups for which only one upgrade is needed per save (with good returns) versus other groups for which five or six upgrades are required (and returns are unacceptable).

Operators who keep this information updated and systematically use it when deciding on SAC and SRC allocation can deploy their resources much more efficiently. Moreover, these companies can minimize the risks of making larger structural changes (for example, separating the handset investment from usage pricing) because they understand in detail the drivers of customer decisions and have confidence in the likely outcome of those moves. As a result, the leading operators have succeeded in reducing their investment budgets by 10% to 20% without harming customer acquisition, base margin, or churn performance. This typically translates into 100 to 200 bps of EBITDA.

EXHIBIT 1: SELECTING THE BEST CUSTOMERS IN THE MARKET



Segments can be identified that have very different value and that are attracted by different offer structures. In our experience, a good value proposition refresh, coupled with the right channel remuneration, can provide a disproportionate share of the best segments.

Pricing and promotions

Historically, telcos focused their pricing offers on driving volume and having a differentiating marketing "shout." Today, most operators have taken a more sophisticated approach, developing offers with a clear view of the base effects, expected churn and ARPU dilution. Still, however, many operators continue to spend more money to attract the least valuable parts of the market, namely, the rapid churners and deal seekers. So to attract deal seekers, for instance, they offer high upfront discounts on the tariff or handset, but such customers tend to have lower loyalty and are thus less valuable over the long term. Instead, the best telcos focus their efforts on the most intrinsically valuable and loyal customers. These segments want more innovative and flexible tariffs, and they are attracted by rewards that grow over time. Thus the leading operators drive loyalty with offers that get better the longer the customer stays. These leading operators also have put in place agile decision-action-measurement cycles that build up a powerful cycle of learning and differentiation. Applying these types of advanced techniques to engineer customer offers typically delivers in excess of 50 bps of EBITDA.

Base management

Telcos have traditionally focused their base management on selling public offers to their existing customers, with few exceptions outside of reactive save teams. Now, the leading companies are tailoring "private offers" to individual customers, increasing the attractiveness for subscribers while creating margin upside for the operator. They have put in place an approach whereby decisions on private offers are totally based on precise data about customers' behaviors. These telcos know a customer's usage as well as his or her likelihood to adopt certain products and services at different price levels, and they keep this information fresh with regular testing. Thus they can deliver attractive offers that help drive better adoption and reduce churn. The top telcos also deploy "surprise and delight" tactics that create cost-effective exit barriers or that lead customers on data-usage journeys to grow their ARPU. Such approaches not only reduce churn and increase margin, they also fly under the

competitive radar because they do not alter public offers or rate cards, and this helps to maintain market stability. Together, such techniques for better base management can be worth at least 100 bps of EBITDA, and often much more.

Distribution optimization Most carriers have yet to bring their distribution channels up to speed with their counterparts in dedicated retailing. The leading telcos, however, have begun to address that deficiency. Indeed, the best operators are starting to employ more advanced retailing capabilities to optimize their store footprints, formats and local offers. They know, for example, the precise effect that opening or refurbishing a shop will have on the business they can capture from the competition, and the cannibalization effects across all their channels (other own shops, indirect retailers and online) depending on the local environment and surrounding shops. They also recognize that the advantages of price reductions can vary by five to 10 times, with aggressive strategies more likely to pay off at competitive locations. Obviously, the potential gains here greatly depend on the scale of an operator's distribution operations, but

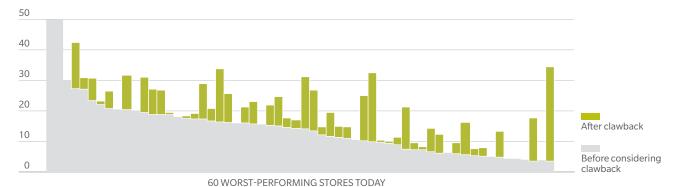
a typical carrier can unlock an additional 100 bps of EBITDA by bringing its distribution management up to the standards of a good retailer.

Bad debt The management of bad debt has a far-reaching influence, going well beyond the control of non-recoverable income and fraud. For most operators, the opportunity costs of failing to manage bad debt properly are even greater than the direct costs. Consider a company that disconnects potentially reliable existing customers or that rejects valuable prospective clients because of bad debt. As it turns out, only a relatively small number of delinquent payments are fraud related or incur high costs, and even though some operators reject as many as 40% of new customer acquisitions, at least half of those would turn out to be valuable accounts. The leading telcos have therefore devised strategies to manage bad debt and access to service in ways that enable them to extract more value and improve the customer experience. They leverage a broad range of tailored customer approaches, using analytics to understand the best approach for each customer and the change in behavior that will result from any action they take. Regular testing

EXHIBIT 2: DECIDING ON STORE CLOSURES CONSIDERING CANNIBALIZATION

FINANCIAL BENEFIT TODAY OF CLOSING THE WORST-PERFORMING STORES, WITH AND WITHOUT CONSIDERING CLAWBACK

FINANCIAL BENEFIT OF CLOSING STORE PER WEEK in \$ K



Very different decisions would be made with and without clawback: The best operators can quantify the incremental contribution of each store, based on an understanding of the surrounding store environment.

So when they want to close any particular store, for example, they know how much volume will be clawed back within their distribution network (i.e., to other own stores, indirect or online) or be lost to competition.

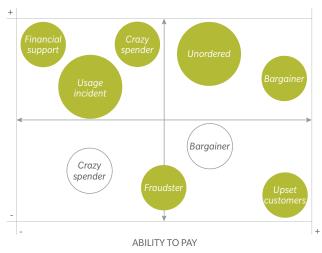


of approaches helps ensure this understanding remains up to date and is used almost "real time" in deciding on customer entry or risk-management profiles in the base. Even relatively advanced operators have been able to unlock an additional 100 to 200 bps of EBITDA in this way.

Customer experience/service Many telcos have undertaken aggressive actions like offshoring to slash their customer-service costs, resulting in some operators losing their positions as service leaders. Other carriers took the opposite route, gold-plating their customer experience to a level that was financially untenable and difficult to justify. The leading telcos have been able to strike an effective middle ground, with "just right" customer experience, because they have developed the capability to quantify exactly how changes to specific touch points will affect the customer's service experience, perception, and resulting behavior. As such, they can carefully evaluate the cost that each proposed change will incur and, in doing so, they can then prioritize their actions based on a detailed cost-benefit analysis. This knowledge is kept up to date with regular surveys and live testing, ensuring that changes in customers' priorities are captured.

EXHIBIT 3: ADDRESSING CUSTOMERS' NEEDS WHILE MANAGING BAD DEBT

WILLINGNESS TO PAY



This process is essential for justifying the business case of large moves, but it can also often yield surprising results in uncovering smaller issues that have a disproportionately big impact on perception and value (and that cost relatively little to address). Better service management based on these techniques can yield an additional 50 bps of EBITDA.

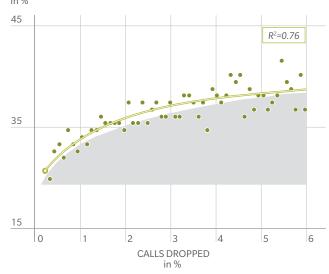
Network infrastructure

Traditionally, a telco's marketing function has defined the customer offer and network requirements, using the network expenditure budgets (CAPEX and OPEX) as an input for its models, and the network teams decided how and where to make those investments. In contrast, leading telcos have taken a more sophisticated approach of value-driven CAPEX and OPEX deployment. For them, the marketing function now has detailed data on the impact of network deployment (see Exhibit 3) and maintenance, enabling a deeper understanding of how network quality will influence customer perception for different segments and how that, in turn, will influence behavior in usage, churn, and market share/adoption. Using that information along with an understanding of localized costs, a telco can then determine the value impact of any change. Now, instead of working in separate "silos", marketing collaborates with the network teams to ensure that any deployment delivers maximum value, taking into account how the customer experience and behavior will change by segment. Telcos that manage their networks in this way can deliver around 100 to 150 bps of EBITDA.

The best operators use data to segment non-paying customers, building a deep analytical understanding of their risk and behavior profile. In this way they can propose customer solutions to improve recovery and retain the valuable customers.

EXHIBIT 4: UNDERSTANDING HOW NETWORK ATTRIBUTES INFLUENCE BEHAVIOR

ANNUALIZED MONTHLY CHURN RATE



Source: Client DWH Oliver Wyman analysis

Leading telcos understand how different network attributes influence customer churn and usage behavior. In this example, a strong relationship exists between network quality and churn, with higher-value customers being even more sensitive and reactive.

IMPLEMENTING THE SEVEN LEVERS

Of course, every company's situation is unique, but operators of all types and sophistication levels have garnered benefits from using the approaches described in this paper. In less advanced markets, even small changes toward data-driven decision-making have reaped quick benefits. And in more mature markets, operators with a strong business intelligence (BI) group and experience using value management techniques have profited from more advanced approaches that have typically required the addition of new capabilities for any particular business lever. Those capabilities have generally included:

- decision support tools that are adapted to the optimal business processes (and not the other way around),
- a reporting framework that provides a consistent forward-looking view, explaining performance on the most important actionable levers and providing drill-down capability so that executives can quickly get to the root causes, and
- bottom-up budgeting, based on specific, accurate details of how proposed changes will affect customer and competitor behavior.



CONCLUSION

Obviously, building such capabilities is hardly a trivial matter. But, when done properly, they can become the foundation of a practical, data-driven approach with seven powerful business levers. And by recognizing the interlinked nature of those levers, telcos can move away from a "silo mentality" and towards the integrated management of top line and costs. The result: a much more centralized view of resource allocation, enabling a carrier to make optimal decisions based on a thorough understanding of the various tradeoffs involved. Using such a practical, data-driven approach, bestin-class operators have already achieved real, tangible successes. Undoubtedly the potential gains are considerable: up to 700 bps of EBITDA across all seven levers when moving from a good starting capability level to best in class.

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SMARTER WAYS TO ACQUIRE AND RETAIN CUSTOMERS

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Telco operators have been focusing on tighter cost management to maintain or improve their profitability levels. Despite those efforts, however, many have failed to make a sustained long-term impact on their largest controllable operating expense: subscriber acquisition and retention costs. But the best operators have made bold moves to overhaul their investment models or they have achieved step changes in their customer investment management capabilities. Both approaches have relied on the same foundational capability: providing managers with a deep quantitative understanding of how customers will react to differences in investment level and structure and the financial implications of those choices. Of course, all this is far easier said than done, but the rewards are considerable: These leading operators have succeeded in reducing their customer investment budgets by 10%–20% without harming their acquisition, base margin or churn performance. Moreover, such results don't necessarily require multiyear, corporate-wide initiatives; in fact, significant value can be attained within four to six months.

REDUCING SUBSCRIBER ACQUISITION AND RETENTION COSTS

Given that many telco markets reached maturity years ago, rampant customer growth is a thing of the past. Telco operators are now locked in a battle to develop and retain their best customers, even as they continue their efforts to acquire new ones. As the competition becomes increasingly fierce, companies have launched initiatives to reduce costs in order to maintain past profitability. But those efforts have had limited success on the customer-investment front. In most cases, customer-investment spending has not been effectively controlled – and in some cases it has even continued to grow.

Indeed, reducing subscriber acquisition and retention costs is a huge challenge. Customer-investment spending is at the heart of an operator's ability to acquire and retain clients – less cost is globally desirable, but

only if acquisition and retention can be sustained without diluting the base. An additional thing to keep in mind is that market dynamics are usually not favorable to investment cuts: While most competitors quickly follow a subsidy increase (to avoid losing their market share), when facing an attempt by one of the competition to "cool off" the market, they may well prefer to keep subsidies at their budgeted level and gain market share. In that context, some telco operators have made - or are considering making - bold changes to their investment structures (see Exhibit 1). Others have succeeded without significantly changing their models. The common factor for the winners: injecting more science into their decision-making processes (see Exhibit 2), allowing them to obtain a much better understanding of customers' reactions to differences in investment level (and the resulting financial implications). As such, they haven't had to rely as much on "guesstimates" and can avoid making unsecured bets.

EXHIBIT 1: OPERATORS WORLDWIDE ARE MOVING BEYOND TRADITIONAL POSTPAID CONTRACTS AS A MEANS TO LOWER SUBSIDIES AND ATTRACT/RETAIN SPECIFIC SEGMENTS

GOALS PURSUED BY OPERATORS WITH NEW HANDSET PROGRAMS

Reduce overall level of subsidies, which has been exploding with smartphones

Make actual cost of devices more transparent to end-users to increase pressure on OEMs to compete on device pricing

Offer new handset options tailored to specific segments (e.g., frequent upgraders) to increase share of preference and loyalty

Where possible, monetize customer preferences for different handset options (e.g., option for early upgrade, no payment down) through increasingly sophisticated pricing schemes

- * 650/24
- ** Handset give back

TYPE OF HANDSET PROGRAM			
	Upfront	Monthly	
Traditional contracts			
Two-year contract	\$199	\$70	0
Handset/service decoupling			
SIM only	\$650	\$50	О
Handset leasing Pay over time	\$0 \$0	\$50+20 \$50+27*	•
Hybrid logic Name your price (and pay only 24 installments)	or \$0 or \$100 or \$200	\$60+23 \$60+16 \$60+10	\$ 6 \$ 6
Segment or behavior- driven options			
12-month upgrades	\$0	\$70+27*,*	* 💠
Frequent upgrade Segmented early upgrade	\$199 \$99–\$599	\$70+10** \$70	♦ Δ

HOW CARRIERS MAKE ECONOMICS WORK

- Lowers churn thanks to binding contract; generate extra margin on "late" upgraders; incentivizes larger bundles though subsidy ladder (where possible)
- Offers alternative for price-sensitive subs owning a handset
- Decreases handset renewal cycles (financial incentive to keep handset at the end of contract)
 Locks in customers while claiming "no commitment"
- Makes handset costs transparent and puts pressure on OEMs
 - Monetizes customer cash constraints and upgrade flexibility requirements
- △ Leverages different customer churn and "savability" propensity, early upgrade appetite, and value differences to lock in customer before they "shop around"

DEVELOPING A WINNING FORMULA

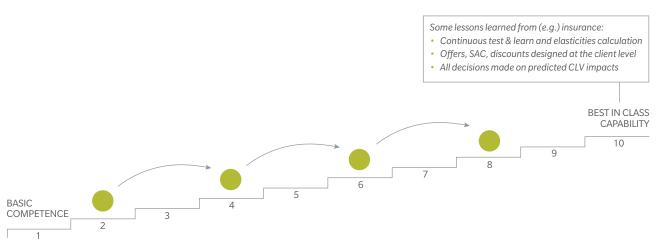
Exactly what kind of knowledge is necessary for companies to make smarter decisions about customer investment management? The leading telco operators have deployed practices and methodologies from advanced industries like retail, consumer credit and insurance to enable them to learn and do the following. For starters, they know how each incremental change in investment level, structure, or timing of the upgrade eligibility rules will affect customer behavior. They also can predict how many customers will actually churn if their upgrade price is not good enough. Moreover, they understand how customers make trade-off decisions about feature richness versus device investment, and about immediate one-off payment versus future installments. They have a detailed understanding of what the competition will do if they increase their subsidies to get a disproportionate share of gross adds

or if they lock in too many of their customers, leaving a decreasing "acquisition market" for other companies. And lastly and most importantly, the leading operators are able to adapt and apply all this knowledge to optimize their customer-investment policies and to de-risk the design of new investment models. At the heart of these new, smarter strategies is the ability to over-invest where the return is best, while investing less on an overall basis.

To appreciate the power of such strategies, consider the following example of customer-acquisition elasticity. Leading operators know that such elasticity can vary by a factor of five, depending on the commercial zone or local competitiveness in a region. Thus, a temporary strategy of slightly decreasing the overall customer-investment acquisition levels combined with regional promotions in certain local markets can significantly (and quietly) improve acquisition efficiency without alerting the competition.

EXHIBIT 2: UPGRADING CUSTOMER INVESTMENT MANAGEMENT CAPABILITIES

SIMPLIFIED VIEW OF OLIVER WYMAN STAIRCASE



- · No understanding of elasticity investment set based on intuition/last years budget +/-
- · Few SAC levels, SRC set relative to SAC
- Handset prices based on intuition and overall SAC level
- Steering of spend and outcomes (e.g., churn, acquisition) disconnected Budget steering defined and managed bottom up
- Detailed understanding of causalities used to define investment levels
- · Industrial measurement, including "test and learn"
- · Competitive reaction accounted, and offer structured to create "invisibility"
- Handset price levels set taking into account "handset" cannibalization

With respect to customer retention, sophisticated operators are able to identify large groups of customers where as many as five or six incremental upgrades are needed for another incremental save, and other groups where just 1.5 upgrades will do. Obviously, moving investments to the latter groups will dramatically lift the retention efficiency (see Exhibit 3). They can also quantify the subsidy decrease each customer segment will accept in exchange for earlier upgrades and thus save on overall spending while increasing customer satisfaction with the right "early upgrades" subsidies.

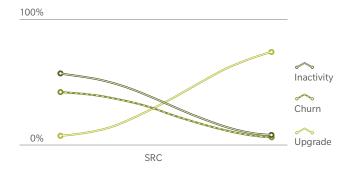
At a more granular level, improved pricing for individual handset models also yields significant returns. The best operators understand each handset's gross and net elasticity. As such, when increasing the subsidy on a given model they can quantify the share of the volume increase coming from the overall market versus from those customers who would have taken one of their offers anyway; they also know which offers and handsets were cannibalized. So they might, for example, over-invest in one of the challenger smartphones to steal share from the popular smartphones in order to reduce their overall investment, and by doing so they can often also reap the added benefits of increased supplier funding.

THREE FUNDAMENTAL CAPABILITIES

As mentioned earlier, only a few leading telco operators have successfully reinvented their investment models or optimized their existing customer investment frameworks. In doing so, they dramatically upgraded their capabilities in three fundamental ways:

- 1 Understanding market and customer dynamics: striving to capture customers' behaviors and competitive dynamics in "stable laws," thus creating powerful insights with which to make customer-investment decisions.
- Continuous learning: setting up operations that enable the continuous learning of customers' and competitors' behavior in order to make adjustments in the investment strategy.
- The "optimization ready" organization: organizing the customer investment budget setting, steering, and day-to-day management in a "de-siloed" way.

EXHIBIT 3: CHURN, INACTIVITY AND UPGRADE RATES BY SRC LEVEL



Advanced operators can predict the precise impact of increasing the retention investment (in device/offer, etc.) on one particular micro-segment (% decrease in churn, but also % of customers who would have done nothing and now upgrade). Some segments need as few as 1.5 upgrades per churn save, others five or six, resulting in huge ROI differences.

Understanding market and competitor dynamics – the search for "stable" laws

Most operators have gained a significant amount of skill and experience in defining customer-investment levels and policies. They have experienced teams with a good intuition of the impact of changes in handset pricing or investment levels on market share and churn (for example, if we increase the subscriber-acquisition cost, or SAC, by X, then we will acquire an additional Y customers). They can also measure the margin of key customer segments accurately, and thus quantify their "static" ROI to guide investment level setting. The leading operators, however, do not rely simply on intuition and static views. They have decomposed the overall "chain reaction" in order to quantify the impact of changes to key levers such as acquisition subsidy, retention subsidy, eligibility and so on. The goal is to fully understand and model the way customers make their decisions.

Take, for instance, retention elasticity, which depends not only on customer segments and behaviors but also on the difference between your retention offer and the competitors' acquisition offers. This reflects the way that customers really think - that is, they balance the attractiveness of the loyalty program of their current operator at the moment of contract renewal versus the deals proposed by the competition for new clients. Knowledge of retention elasticity also helps the leading operators engineer the timing of contract renewal for each customer segment in order to favor early upgrade at a lower cost, thus reducing the overall renewal cost. In addition, several secondary effects also need to be accounted for. For example, increasing the investment in retention on customer segment X will lead to fewer "disconnects," which could potentially trigger reactions from competitors because there will be fewer available prospects for them.

Understanding such market and competitive dynamics is not a trivial task and requires more than intuition. Once accomplished, however, a company can develop powerful stable laws and models, which can then be applied to a wide range of situations, from very small tactical moves to de-risking more structural changes, enabling adjustments to be made for optimizing those maneuvers.

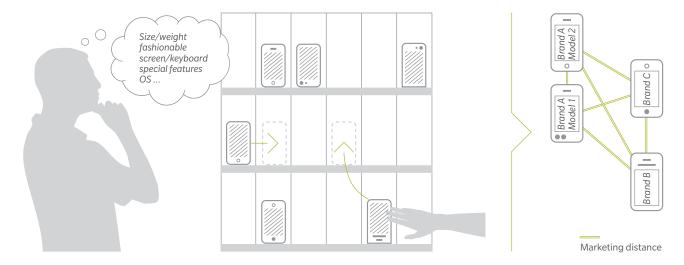
2 Continuous learning – a necessary obsession

Many operators know how to measure the ROI of customer investments, and they have detailed reporting to understand the volume and the quality of the acquisitions, with similar numbers for retention and churn. The leading operators, however, are also able to measure customers' elasticity to changes in investment levels, and they can quantify the effect of changes to eligibility rules on a regular – if not continuous – basis. In addition to past data analysis, the most advanced of them apply live testing techniques that the consumer finance and insurance industries have used for years.

Here's how it works: In acquisition, a subset of shops is isolated for testing, and different prices (that is, investment levels) are tested. Results are then compared with a control group of stores.

In retention, hundreds of segments are often managed, with different price levels tested across them through online or telesales channels. Elasticity curves are developed for tariff richness, device pricing, structure and upgrade timing to allow proper trade-offs to be made. Monthly measurements are made to fine-tune the elasticity curves, while regular larger scale testing is run across a broader spectrum of investment levels and to evaluate potential new investment structures. Another technique that the leading operators deploy is "marketing closeness mapping". Commonplace in retail, marketing closeness mapping can be used to understand how new handsets will take market share and to quantify their net and gross elasticities. Such approaches allow qualitative insight to be combined with hard data (see Exhibit 4), enabling operators to predict changes in their product mix with much more accuracy. Armed with this information, telco executives can better determine not only the optimal pricing but also the required stock levels, and they become better equipped to negotiate with the handset providers.

EXHIBIT 4: QUALITATIVE "MARKETING CLOSENESS" MAPPING OF HANDSETS CAN BE INTEGRATED WITH THE HARD ANALYSIS TO BETTER PREDICT HOW VOLUMES WILL MOVE AS PRICE IS CHANGED



The "optimization ready" organization – reaching across silos

Telco executives who manage customer investments face many complex decisions. Budget setting, so often tackled in a top-down fashion for lack of a better way, must now account for the deep understanding of the impact of changes on churn and acquisition, including assessments of cross-effects, such as acquisition activity on retention. Rich data are needed with low latency, and test results require constant refresh and analysis. Hundreds of day-to-day decisions must be made based on this information and reconciled systematically with top-level steering: detailed handset pricing, retention investment levels across hundreds of segments and so on.

No organization can manage so many decisions and processes simultaneously with the use of just traditional ad hoc tools. And the reality is that, in less advanced companies, decision-making often remains "siloed" in different departments, where important decisions are frequently driven by instinct.

Many organizations do produce helpful, detailed, valuebased performance reporting, but all too often such information is not integrated into the right customerinvestment governance, decision-making process or tools. In contrast, the leading players have progressively developed an integrated suite of decision-support tools and processes, linking all the elements of customer investment management: handset pricing, competitive dynamics, budgeting and steering, handset range, sales forecasting and so on. These tool modules are automatically fed with fresh customer data, market information and updated elasticities from continuous analysis. Moreover, the leading operations have clearly defined processes and workflows that provide inputs and help inform the decisions of different stakeholders within the organization.



CONCLUSION

When it comes to operating expenses, one of the few common priorities for all telco operators is clear: reduce customer investments. But cutting those costs is anything but simple because customer acquisition and retention greatly depend on such investments. Some operators have made substantial gains by changing their investment models, or by upgrading their capabilities to optimize investment within an existing structure. Either way, the requisites for success are the same: a deep quantitative understanding of customer and competitor behavior, a continuous learning capability and an organizational ability to embed this science into decision-making processes. The best operators have achieved those capabilities by adapting practices from the financial services, insurance and retail industries. They have upgraded their analytical capabilities, introduced a culture of systematic measurement and continuous learning and have created the governance and the tools to embed these critical competencies into their organizational DNA. With the right focus, these changes can be realized relatively quickly, with significant value typically being unlocked within four to six months. And the rewards can be considerable. It is not uncommon for operators to save 10-20% of their investment budget while holding steady on customer churn, base margin and acquisition performance. The impact on the bottom line? Such savings typically translate into one to two points or more of EBITDA improvement.

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BAD-DEBT VALUE MANAGEMENT

Laurent Bensoussan Curig Johnston Stephan Picard

Bad debt is costly for telecom and cable operators. Non-recovered SAC or ICX costs and non-recoverable commissions can quickly add up, making it essential both to control the level of risk and to have an efficient recovery process in place. Fraud – when customers do not intend to pay their bills and will never become valuable – is particularly expensive, and requires tight control. Overall, write-offs from bad debt and fraud can amount to 1–2% of revenue.

But for most operators, the opportunity costs of managing bad debt are even greater than the direct costs. Disconnecting potentially reliable existing clients or rejecting valuable prospective clients means foregoing future profits. Only a minority of payment incidents are high-cost or fraud-related, with a high proportion of bad debt accounted for by long-established and previously reliable customers, usually with relatively low amounts at stake. In most cases, losing these customers will mean a significant loss of future revenue: With as much as 25% of the churn in existing customers due to bad debt, the opportunity is therefore substantial when compared with the relatively low cost of outstanding payments (see Exhibit 1). At the same time, some operators decline as many as 40% of new customer acquisitions, even though at least half of these would turn out to be valuable customers.

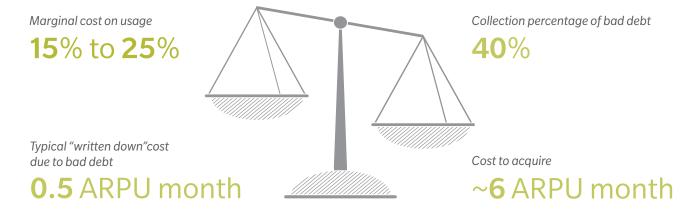
So there is significant value in bad-debt management practices that avoid disconnecting good customers or rejecting good prospective customers. Of course, it's only helpful knowing that it's worth hanging onto half of your customers with payment problems if you can identify which half: Better predictive modelling is therefore vital. A strong focus on value and bottomline impact is also essential – such a shift away from a classic cost-control approach can deliver more profit while maintaining or even improving bad-debt levels. Best-in-class bad-debt management also needs to use a very broad range of tailored customer approaches. While technical requirements to achieve all this are a challenge, many operators have the infrastructure in place to overcome them. Effective organizational alignment on the other hand is a must and is the most critical barrier to overcome

A lot can be learned from other industries, where managing credit risk is a matter of life and death for the business. Principles and techniques from retail financial services can be particularly valuable – but it's also important to keep in mind that telecom and cable operators have fundamentally different economics.

Retail credit is a low gross margin business, with relatively low opportunity costs and a high impact of direct costs; conversely telecom and cable are high gross margin businesses, with much higher relative opportunity costs. Adaptation of best practices is therefore required to fit the business model.

Overall, best-in-class bad-debt management means moving away from bad-debt minimization to bad-debt value management. The stakes are high: One major European operator recently carried out a nine-month overhaul of its bad-debt management practices to deliver a sustained EBITDA improvement of two percentage points, while at the same time building capabilities that would deliver additional gains over the longer term. The rest of this article explores the challenges and opportunities involved in more detail.

EXHIBIT 1: AN ILLUSTRATION OF LOW IMPACT OF DIRECT COST vs. HIGH OPPORTUNITY COST



The cost of outstanding debt (being mainly interconnected costs with high gross margin), on average, typically needs just 0.5 months ARPU to payback. Many customers becoming bad payers were previously good paying customers ...

Note: Illustrative, not all factors are included

... When we consider that even among those bad payers reaching disconnection 40% pay up, the cost is low relative to the risk of losing the customer and trying to acquire a new one – that typically costs six months of ARPU!



EXHIBIT 2: THE DIFFERENT LIFE CYCLE PHASES OF BAD-DEBT MANAGEMENT, OBJECTIVES

ACCESS

- Maximize client value acquisition while minimizing risk
- Filter access of clients who will become bad payers with negative marginal value, however avoid screening of positive-value clients

IN LIFE

- · Maximize in-life client value
- While minimizing potential cost at risk and existing receivables
- Define products for risky client migration

RECOVERY

Maximize amounts recovered at a minimum cost (recovery optimization)

MANAGING THE BAD-DEBT LIFECYCLE

To understand where the biggest opportunities lie, it's helpful to consider each of the three fundamental stages of bad-debt management in turn:

- Screening for access to service
- In-life collection of unpaid bills of customers
- More intensive debt recovery, typically post (at least partial) disconnect

ACCESS TO SERVICE

Clearly, when considering signing up new customers, operators need to decide which to accept, and which are too high-risk. Most operators have mastered core risk screening and prediction techniques: They distinguish fraud from bad debt using orthogonal scores; segment customers by channel, product or handset; and combine data from multiple external agencies and internal databases to differentiate risk levels as effectively as possible. When the models and automated processes are deemed insufficient, they know when to defer to a human decision. Careful testing is also carried out through regular "champion vs. challenger" treatment paths.

But beyond this, differences emerge between the best operators and the rest. Many operators rely upon risk-based cutoffs that have been set arbitrarily based on the outcome of discussions between marketing, sales and finance – with essentially opposing objectives. In contrast, the best operators explicitly take a value

perspective to acceptance, with all parties aligned in aiming to deliver most overall value for the business. They account for risk in the form of fraud and non-payment, but also consider the likely future value of a customer, based on all the information captured at the point of screening (such as price plan, handset selected, demographic, etc.). By adopting such a view, decisions can be made to create more value for the business.

A carefully tailored product range provides scope to offer value-positive alternatives to customers who would otherwise be declined as probable bad payers. Being able to quickly offer the right product can lift both acceptance rate and the value captured: Specifically designed products can be used for this purpose (basic phone, SIM only, lower risk price plans – sometimes bespoke, etc.), along with variable deposits and dynamic credit limits once the customer has signed up.

Implementing a "value-focused" approach to customer acquisition usually means overhauling the business's rewards structure. Commissions and incentives across marketing, finance, and the sales channels need to reflect the true value of acquiring a customer, and this generally means adopting structures that combine new value-based target metrics, clawbacks and residual/value-based elements. New soft and hard organizational structures are typically also required – for example, steering integrating leads from finance, marketing and sales.

Strong analytical capabilities are equally important. Decisions need to be supported with powerful predictive modeling to determine risks and expected value, including the prediction of other elements of behavior,

such as voluntary survival and spending. By building a dynamic value and ROI model allowing real-time POS decisions, the operator can ensure that the decision to accept is largely NPV-based, while including some elements of risk to face the market.

In our experience, adopting a value-based approach to managing access to service usually means significant changes in which customers are accepted or rejected: Around 30% of applicants are reassigned (i.e. accepted) when they would previously have been declined, or vice versa. This brings significant benefits to the bottom line.

IN-LIFE COLLECTION

Once a customer is on board, the challenge for the operators is then to maximize their value while controlling the potential cost at risk. Involuntary churn – i.e., cutting customers off – represents a huge part of most operators' churn. Many operators are sensitive to valuable customers and continually reavaluate customers risk levels with the latest internal and external information to determine the best approach to collection. In a low-growth environment, Finance is under pressure to limit the business's exposure to increasing levels of bad debts and write-offs. While an approach focused strongly on recovery will encourage a proportion of customers to pay up, many are driven away unnecessarily, leading to lost profit potential. Many of the subscribers disconnected as bad debt have been profitable, paying customers for a long time: it would often take less than a month for them to pay back the costs of the debts they have incurred, so a relatively big upside is available from selectively saving and getting the customers spending again, with limited downside risk.

The best operators understand this, and actively manage the true value at risk and real loss potential from continued actions (cost). In-life bad-debt management means distinguishing the ability to recover past balance from an assessment of the future value expectancy, which should then drive the decision to keep a customer active. Looking beyond risk level to understand the customer allows recognition of important differences underlying non-payment.

For example, some customers may be upset with their operator, have suffered a one-time usage incident they wish to negotiate or be too disorganized to pay on time.

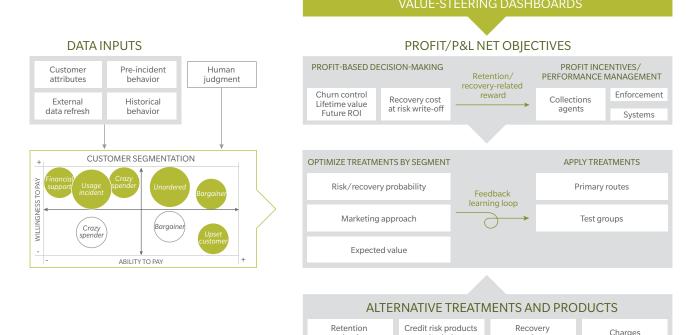
The best operators therefore adopt a segmented approach looking beyond write-off reduction. Their mindset becomes: "How do we maximize value capture by keeping customers spending for longer, rather than simply limiting bad debt, or recording a high collection rate?" They then treat customers differently based on value and need. Different approaches are applied for each segment (harder/softer approaches, different time scales, contact techniques, hard/soft service barring). Specific offers are developed to be used in each segment depending on the reason for bad debt, complementing traditional recovery – examples might be payment in installments, waiving part of the debt, or switching the customer to a low-risk product.

Of course, it's hard to know in advance exactly which approach will work with each customer – so each activity's impact on lifetime, spending and recovered amount is quantified and modeled, allowing a "test and learn" approach to in-life debt collection. Decisions are supported by learnings from the tests and econometric analysis, which is constantly refreshed to keep track of any learned behaviors (e.g., bluffing). Risk and expected value can then be re-scored during the life of the customer relationship based on all available information.

To manage these different recovery strategies by segment, a segmented queuing system is used. Advanced predictive behavioral models, tied to marketing understanding, are built to classify customers based on past activity. The overall objective is to maximize the value created by keeping the customer for longer and spending more, and also factoring in the total amount (margin-adjusted) that can be recovered in the event the customer can't be retained. These best-inclass collections techniques increase collected revenues and increase customer lifetime value contribution by reducing churn.



EXHIBIT 3: VALUE BASED COLLECTION



mechanisms

and solutions

DEBT RECOVERY

When all else fails, operators need to maximize the amount they recover, at minimum cost and risk to the brand. Moving beyond the softer, more intensive strategies, the focus shifts from maintaining the customer relationship to recovering debts efficiently.

At this stage, a multiagency approach, combining internal and external agencies, is standard practice among telecom and cable operators. Agencies are carefully selected, then encouraged to compete. There is usually an internal agency, both to participate in the competitive process, and to deal with "easy pickings." A strong two-way information flow is set up so that the operator knows which treatments are used with each customer, and so that each agency knows more about who they are dealing with. While the debt sale market is commonly used as the last call, taking care to avoid harming the operators' brand.

But the best practice operators go a step further than this. Debts are assigned based on the best chance to recover in addition to considerations of competition and fulfillment of other quality of service KPIs, while predictive models are used to understand which customer segments (soft disconnects, automated messaging, etc.) are best treated by which agency. The operator also provides more input into the treatment, since some customers are more sensitive to certain approaches (legal, direct mail, phone contact, doorstep, etc.). The agencies' incentives are set to maximize recovered value, so that they treat all or at least most of the debt. In cases of failed attempts, agencies are also incentivized to return debt early to maximize the speed of future stages and hence the recovered amounts. Finally, reconnection is also rewarded in some cases, since it can form a low-cost acquisition channel (albeit a low-volume one).

actions

Control over the full process, from where to assign to whom and what treatment should be given, can create value by greatly enhancing recovery while controlling cost.

DCA 1 DCA 2 DCA 1 of accounts among DCA Disconnected DCA 3 DCA 2 Write-off accounts Operator DCA 3 Debt sale 1st PLACEMENT 2nd PLACEMENT 3-6 months 3-6 months **FEEDBACK AND** INFORMATION **FEEDBACK AND INFORMATION** Standard

EXHIBIT 4: DEBT COLLECTION AGENCY ALLOCATION AND MANAGEMENT PROCESS

CRITICAL COMPONENTS TO SUCCESFULLY MANAGE BAD DEBT FOR MAXIMUM ROI

Overall, then, there are four critical elements that need to be mastered in order to optimize the value delivered through the credit risk management function.

Analytical capability

Ability to apply best-in-class techniques, methodologies, models and tools adapted from FS/consumer credit, to predict expected customer behavior and assess the impact of decisions on economics.

Strong value focus across the business

Strong business value understanding allows trade-offs against cost and investment, translating credit-risk decisions into bottom line profitability.

Customized approach for each individual customer

Finding the best way of addressing customer-specific root-cause issues and situations, using innovative products and solutions, to ensure the capture of customers with a good ROI and controlled risk.

Best in class

Organizational alignment

To "caricature" we may think of a typical organization where finance focuses on bad debt reported numbers (e.g., write-offs, bad rates, level of involuntary churn, disconnects after 30 days etc.). Sales cares about sales numbers, acceptance rates and getting customers through and sees credit risk as a hurdle. Marketing focuses on P&L of the base, and follows KPIs such as churn and acquisition, sales numbers and acceptance rates and level of involuntary churn. Such a structure, combined with a lack of alignment of incentives, naturally creates conflict and inefficiency. Effective organizations are well-aligned and supported by objectives, incentives and steering that force decision-making to drive profit. This is perhaps the hardest challenge to overcome!

CONCLUSION

Bad-debt management influences many aspects of value capture, from acquisition volume and quality, to churn and spending, and must be treated as an integrated commercial function. Cross-industry best practices, from financial services especially, provide the base from which the best operators can create more value – however, these best practices need careful adaptation to telecom and cable economics.

To make the advances requires significant analytical capability, a strong value focus across the business, a customized approach for each individual customer and critically organization alignment.

The rewards are great – one to two points of EBITDA is achievable – depending on the operator's current approach and capabilities, and on the organization's ability and motivation to make the advances. As a major European operator has recently shown, steps can be made quickly and pay for themselves many times over with short paybacks.



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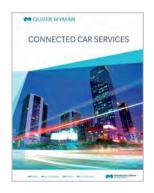
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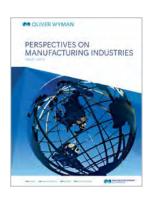
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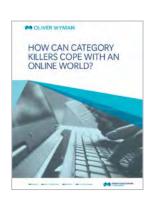
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