2016 TELECOMMUNICATIONS
RISK FACTOR SURVEY

SURVIVAL OF THE FITTEST: TELECOMS RISK FACTOR SURVEY 2016

This year BDO's annual review of the major risks facing leading global telecoms companies reveals the sector is under even greater pressure to adapt to a changing market. Over the last 12 months this pace of change has accelerated, not slowed. Disruptive forces, such as technological innovation, changing consumer behaviour and new competitors, are intensifying. Collectively these disruptive factors have the potential to impact future financial performance of telecoms companies.

BDO's research shows these industry disruptors, and their potential consequences, are more present on the risk radar of leading telecoms companies today than they were a year ago. With margins and future revenue streams significantly challenged, these risks cannot be ignored.

To understand what really concerns telecoms leaders, BDO has investigated the risks self-reported by 60 of the largest fixed line and mobile telecoms providers, across 16 different global markets in the Americas, EMEA and Asia-Pacific. This research is supplemented with commentary from BDO experts, as well as the perspectives of the CFO of a leading American telecoms provider who describes the most critical risks and opportunities facing his company today and in the future.

Talking about the strategic dilemmas facing his company the CFO highlights a shift in consumer demand away from fixed voice telephony to wireless and other communication channels. As a result his company's operating model needs to be rapidly overhauled: "Even though there are areas of the market, typically those related to broadband, which are growing," he says, "there are many segments that are continuing to decline. We have to make further capital investments in order to sustain our market position, yet at the same time we are under renewed cost and margin pressure from our competitors."

This situation is not uncommon. BDO's research finds many telecoms companies facing similarly tough choices about their future. In a tough operating environment, many have reported lukewarm financial performance in the last 12 months. Just under half the companies investigated for this survey (28 out of 60) cite a downward trend in underlying profitability (EBITDA) in their most recent financial results. With conditions unlikely to ease in the short- to medium-term, only those companies that pay full attention to the risks ahead will be best-placed to enjoy continued success.

TECHNOLOGY, CYBER AND COMPETITION RISKS RISE UP THE AGENDA

Telecoms companies identify many varied risks for their sector. Among the 60 companies investigated, finance risks such as volatility in currency markets and interest rates remain top of the table of concerns as they did in 2015. A full breakdown is given in Figure 1.

This is closely followed by three risks which have all risen in prominence this year: increased competition, the fast arrival of new technologies, and cyber security and data hacking. The proportion of companies citing each of these risks has risen on 2015, and has now overtaken macroeconomic uncertainty as a leading concern, which itself has decreased to 42% in 2016 from 52% in 2015.

In 2016 telecoms companies report a wider variety of risks than ever before. New issues such as terrorism, geopolitical instability and labour union unrest have entered the list of top 30 risks for the first time. Companies are particularly concerned about events that could bring about unexpected volatility, and therefore might negatively impact their ability to serve customers or disrupt the normal functioning of their market.

FIGURE 1. THE TOP 30 RISKS REPORTED BY 60 OF THE LEADING GLOBAL TELECOMS COMPANIES.

2016 RANK	RISK	2016 %	2015 %	CHANGE IN LAST YEAR
=1	FX/currency fluctuations	82	82	EQUAL
=1	Interest rate fluctuations	82	81	UP
=1	Liquidity and cash flow risks	82	74	UP
4	Access to finance	75	76	DOWN
5	Increased competition	60	58	UP
6	Fast arrival of new technologies	55	48	UP
=7	Cyber security / data hacking	42	37	UP
=7	Macroeconomic uncertainty	42	52	DOWN
=7	Regulatory change and uncertainty	42	45	DOWN
10	Maintaining data privacy	33	48	DOWN
11	Unfavourable changes to regulation	32	55	DOWN
12	Service and network interruption	30	52	DOWN
=13	Recruiting and retaining talent	27	27	EQUAL
=13	Over-dependence on suppliers	27	47	DOWN
=15	Geopolitical / social risk in regions of operation	23	n/a	NEW
=15	Reputational risk	23	37	DOWN
17	Changing customer demand	22	42	DOWN
18	Unfavourable litigation	20	35	DOWN
19	Infrastructure / poor capital investment	17	31	DOWN
=20	Failure to meet obligations	15	26	DOWN
=20	Supplier error	15	42	DOWN
=22	Customer dissatisfaction	13	24	DOWN
=22	Adverse impacts of acquisition or sale	13	24	DOWN
=22	Terrorism	13	n/a	NEW
=25	Union and employee unrest	12	n/a	NEW
=25	IP infringement	12	26	DOWN
27	Bribery and corruption	10	n/a	NEW
28	Access to sufficient spectrum capacity	8	27	DOWN
=30	Loss of market share	5	n/a	NEW
=30	Aborted M&A plans	5	n/a	NEW

TECHNOLOGY, CYBER AND COMPETITION RISKS RISE UP THE AGENDA

Another trend emerging from BDO's research is for telecoms companies to cite a greater number of risks specific to the regions or markets in which they operate. Nearly a quarter (23%) cite risks in specific overseas jurisdictions. For example, Bezeq, one of the largest telecoms groups in the Middle East, draws attention to "the growth of the Israeli national debt, rising house prices, and uncertainty in political and defence arenas" as risks that cast a shadow over the company's economic resilience and its future revenue streams.[1] Important differences between regions are highlighted in the box below.

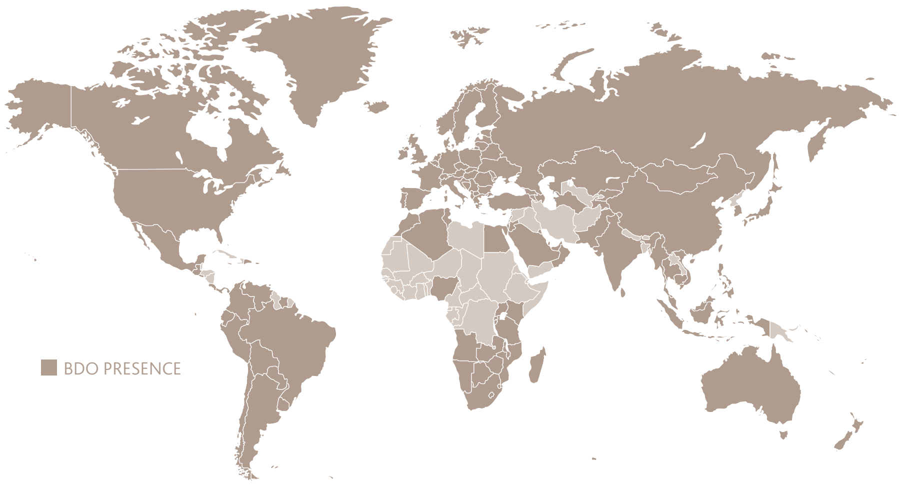
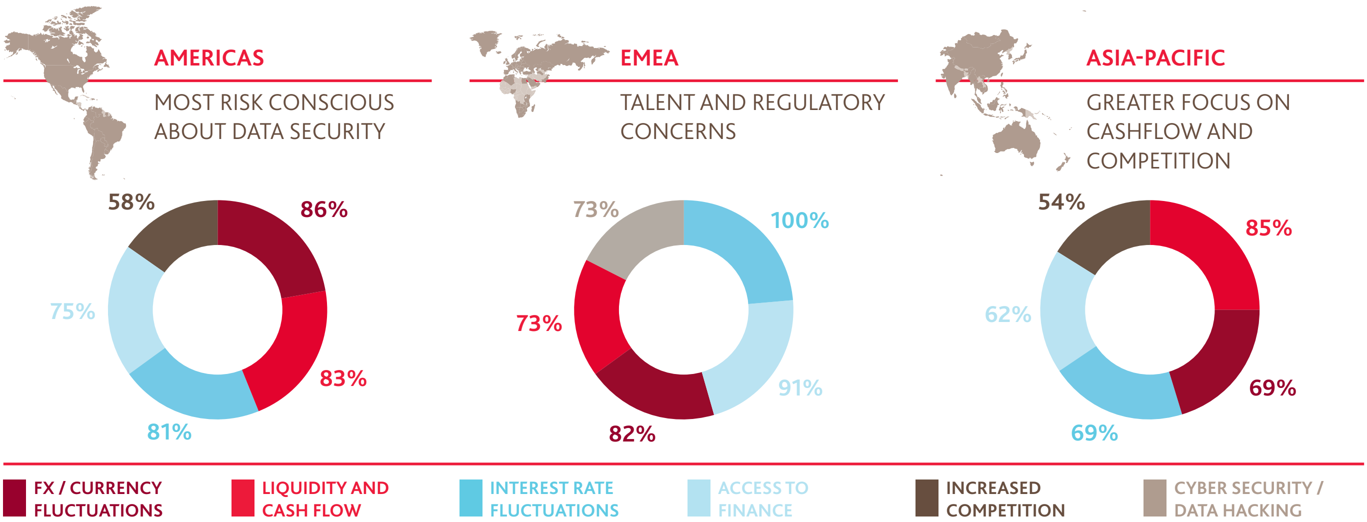


FIGURE 2. THE TOP FIVE RISKS PER REGION AND THE PROPORTION OF COMPANIES IN THAT REGION WHO MENTION IT



Telecoms companies in the Americas are most concerned about interest rate fluctuations and their continued ability to access growth capital. The region pays the greatest attention to cyber security and data hacking risks: 73% of American telecoms companies cite this as a major risk, compared to 42% worldwide.

Telecoms companies in EMEA are more likely than their global peers to cite their ability to attract and retain talent as a risk to the future growth of their business. Companies in the region are also particularly concerned about regulatory change: just under half (44%) point to regulatory changes such as the EU's Digital Single Market as negatively impacting their future revenue streams.

Although companies in Asia-Pacific generally cite fewer risks than their global peers, they are notable for highlighting concerns about liquidity and cashflow, with 85% concerned about these risks for their business. Increased competition also weighs heavily on the minds of telecoms companies in the region as the second most significant source of risk after financial risk.

1. Bezeq, Periodic Report for the Year 2015: http://ir.bezeq.co.il/phoenix.zhtml?c=159870&p=irol-financialreports

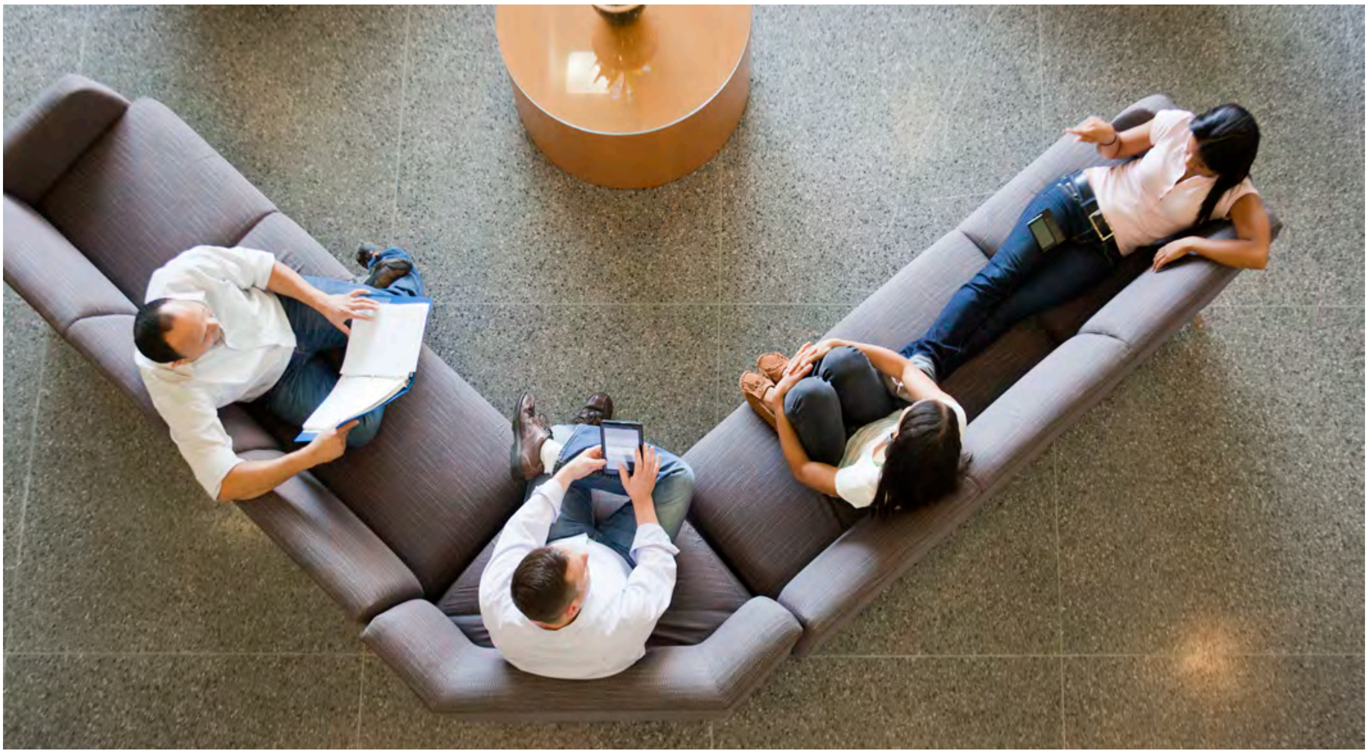
Drawing on the research among 60 leading global telecoms companies, BDO has identified five areas of risk that all telecoms companies – regardless of size or geography – should prioritise as part of their business planning. These are outlined in Figure 3. The following pages detail how each of these five risk categories may impact the strategy and day-to-day management of telecoms companies. This paper concludes with a series of short questions that executives can use to hone their current thinking on these issues.

FIGURE 3. TOP FIVE RISK CATEGORIES THAT ALL TELECOMS COMPANIES NEED TO INCLUDE IN THEIR BUSINESS PLANNING.

1	2	3	4	5
FINANCE RISKS	RISKS OF CHANGING CUSTOMER NEED	RISKS FROM NEW TECHNOLOGY AND COMPETITORS	CYBER AND DATA SECURITY RISKS	REGULATORY RISKS

BDO'S VIEW

Although telecoms companies view the macroeconomic environment as more favourable than 12 months ago, we note that the major risks rising up their agenda have become more sector-specific. Issues such as regulation and competition increase uncertainty and are being paid more attention by executives. Telecoms leaders need to scan the horizon with the widest lens possible because it is likely that tomorrow's source of industry disruption is not on their risk radar today.



FINANCE RISKS

INTEREST RATES AND CURRENCY FLUCTUATIONS IMPACT CASHFLOW

Although our research shows telecoms companies agree that their macroeconomic environment improved between 2015 and 2016, finance risks still dominate the list of issues they believe have the greatest potential to derail future strategy. For example, exchange rate fluctuations remain a major concern and are cited by 82% as a risk for their company. With many companies outlining plans to expand operations and serve customers in new global markets, this leaves them exposed to greater FX volatility.

Interest rate rises also pose a major concern. This is particularly true in markets such as the Americas and Europe where rates have remained at historic lows, but may start to rise in the medium-term. Reliance Communications, an Indian telecoms company, notes that a combination of these two factors may negatively impact its business: "A key risk is the normalisation of monetary policy by the US Federal Reserve which may spark off capital flows back into the US treasuries and may spur appreciation of the US dollar".[2] Many companies cite scenario-planning and derivative instruments as key mechanisms for managing these risks.

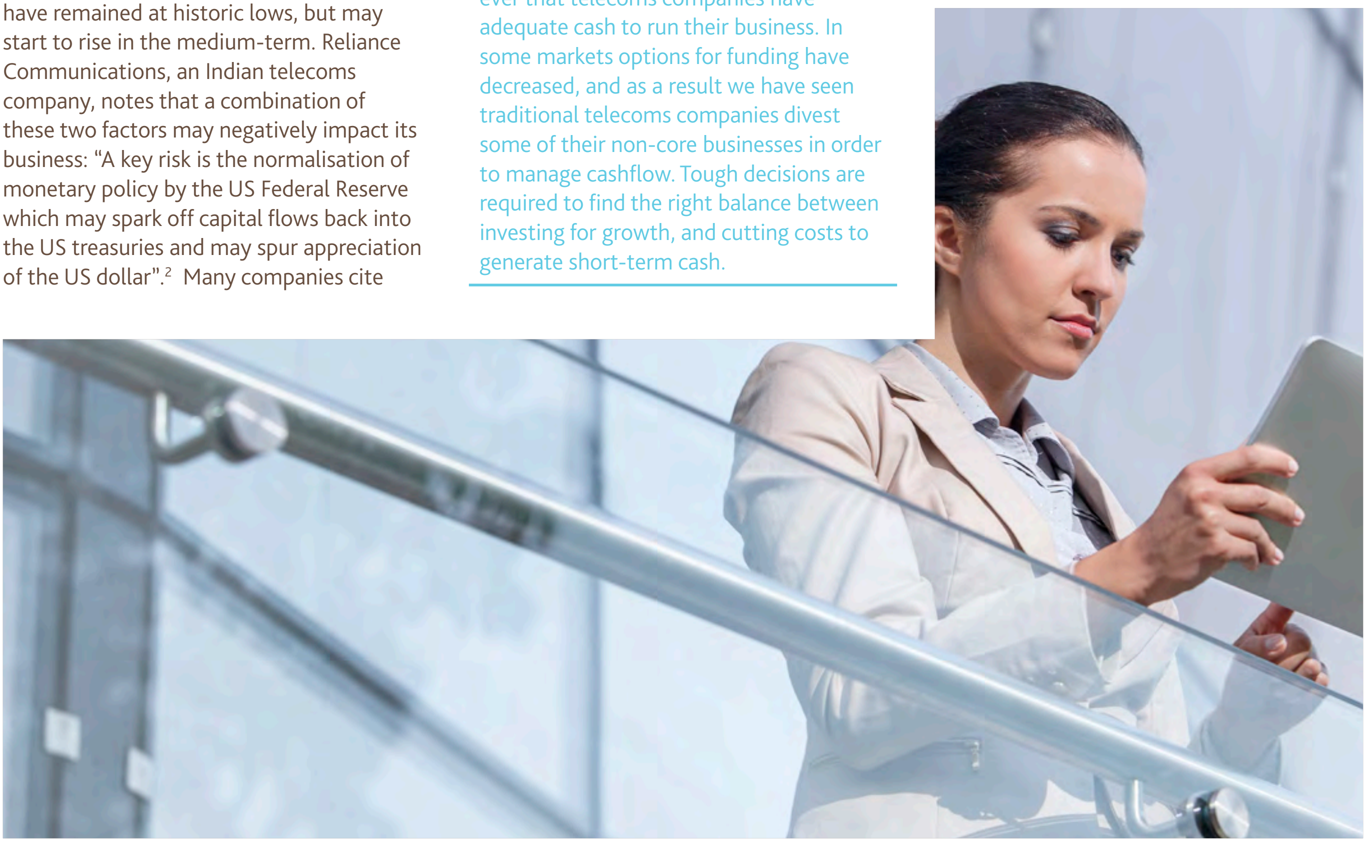
These finance risks have a practical impact on the way telecoms companies manage their cashflow. As a result, controlling cost remains high on the agenda for many companies in the sector. One approach that companies are adopting is to introduce a wider scorecard of financial and non-financial metrics to track progress controlling costs and increasing productivity.

BDO'S VIEW

With competitive pressures intensifying, it has become more important than ever that telecoms companies have adequate cash to run their business. In some markets options for funding have decreased, and as a result we have seen traditional telecoms companies divest some of their non-core businesses in order to manage cashflow. Tough decisions are required to find the right balance between investing for growth, and cutting costs to generate short-term cash.

A CFO'S RESPONSE TO DEALING WITH FINANCIAL RISKS

The American CFO we interviewed outlines his approach to managing finance risk: "I have a belief that there ought not to be any sacred cows. In most telecoms companies half the cost structure is people-related, so we have to find ways to boost productivity. I have been tracking metrics such as how quickly we manage trouble tickets and installations, and how many jobs are completed per day per technician. We are focusing on ways to automate many of these processes."



2. Reliance Communications, Annual Report 2014-2015: http://www.rcom.co.in/Rcom/aboutus/ir/pdf/RCOM-Full-Annual-Report-2014-15.pdf

RISKS OF CHANGING CUSTOMER NEED
KEEPING PACE WITH DEMAND

To thrive in their markets telecoms companies need to keep pace with changing customer needs. When reporting on consumer risk, companies cite two main concerns: continued price sensitivity among telecoms customers, and customer expectations about services, particularly bundled offerings, continuing to rise. Some companies in our research draw attention to being too heavily reliant on single income streams and acknowledge the need in a price-sensitive market to diversify their revenue streams.

As consumers' habits change, and more people stream large amount of content online, many telecoms companies find themselves needing to provide customers with reliable, high-speed online access in order to meet service demands. For example, as increasing numbers of people are choosing to download video content online rather than watch television of an evening that poses a bandwidth challenge. Customers expect uninterrupted access to their network at a competitive price.

Referencing this challenge, US telecoms company Time Warner Cable, in its last report before its recent merger with Charter Communications, highlights that a future weakening of economic conditions could have a further negative impact on customer demand. This could lead to, "reductions in customer demand, especially services for which additional charges are imposed, and to a continued increase in the number of homes that replace their video service with Internet delivered and/or over-air content, which would negatively impact our ability to attract customers, increase rates and maintain or increase revenue".[3]

Some companies plan to target new customer segments in order to compete effectively. The CFO we interviewed about his experience comments: "Our customer base has definitely shifted towards business customers to offset the decline in personal consumers. However, I anticipate that as we develop better services and new services, there will always be a constituency of consumer who require telephony services." The impact of a reduction in demand is likely to be long-term margin compression.

How are telecoms companies responding to this customer demand challenge? One strategy is to find ways to leverage existing customer relationships and assets in new ways. The CFO continues: "As a telecoms company we have fat pipes, we have lots of real estate in terms of buildings, space, telephone and aerial plans. We also have lots of vehicles. We are exploring what we can do with all of this as our voice telephony business declines. Beyond broadband we can add on services such as hosting applications in our data centre, we can provide software as a service or infrastructure as a service. We recently converted one large central office into a technology hub in collaboration with a local university and the local government to create a hub for start-ups."

Elsewhere telecoms companies are pursuing acquisitive strategies in order to build capabilities in areas that will help them address changing consumer demand. For example, AT&T, a traditional telecoms player recently acquired the satellite company Direct TV to bundle new services to its combined customer base. US company Charter Communication's recent $55 billion acquisition of Time Warner Cable and $10.4 billion acquisition of Bright House Networks has been driven by its need to improve broadband customers experience to allow for faster download speeds and higher-quality video.

BDO'S VIEW

We are witnessing a generation shift in how people consume media that shows no signs of abating. The impact on the telecoms industry of this shift is significant: as customers come to expect access to triple-play or bundled services at a competitive price point as the norm, operators need to look at new ways of addressing this demand.

3. Time Warner Cable, Annual Report 2014: http://s1.q4cdn.com/730563363/files/doc_financials/Annual%20Reports/2014/TWC-2014-Annual-Report.pdf

RISKS FROM NEW TECHNOLOGY AND COMPETITORS

CHANGING THE PLAYING FIELD

Many of the changing habits in evidence among consumers today are driven by significant technological innovation within the telecoms sector. This technological change has widened the competitor set for many traditional telecoms companies; many telecoms providers, for example, now consider services such as YouTube, Netflix or Hulu, voice streaming services or content sharing platforms, as potential competitors for market share and for valuable consumer discretionary spending.

60% of companies in our research cite the rise of new competitors in their markets as a risk for their own business. In response they are exploring ways to adapt to their own services because new competitors have changed consumers' expectations about the service levels, price and quality they receive from their providers.

New market entrants can often be more agile than traditional telecoms providers. They can be quicker to embrace new technologies, and often do not have legacy infrastructure costs to service. Netherlands-based telecoms provider Altice notes in its annual report that the telecoms sector is no longer a level playing field in this regard: "In some instances, we compete against companies which may have easier access to funding, more comprehensive products ranges, and greater financial, technical, marketing, or personnel resources. Some of our competitors may use different technologies to provide their services, may not own their own fixed-line network, or are not subject to obligations applicable to operators with significant market power".[4]

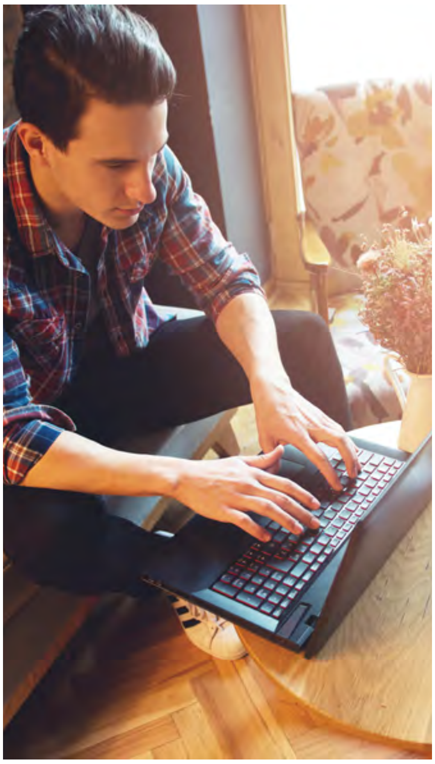
As telecoms companies find themselves competing on so many different fronts, the need to have a focused and well-defined customer offering has become greater than ever. Australian telecoms provider SingTel Optus notes that increased competition is one factor that may limit its own future growth prospects: "We continually look for investment opportunities that can contribute to our regional expansion strategy and develop new revenue streams. Our efforts are challenged by the limited availability of opportunities, and by competition in those markets".[5]

"There are always new entrants trying to break into our market," says the CFO we interviewed. "Although telecoms is highly competitive, for a newcomer it is a tantalisingly large opportunity: a global multi-trillion dollar industry. Entrepreneurs have always been able to come up with business plans for new telecoms businesses and find funding on Wall Street. The latest opportunity is around fibre. As an incumbent we have got to withstand these assaults time and time again, while adapting ourselves as the market moves."

One example of how both new technologies and competitors are changing the shape of telecoms is the provision of data centre services. What was until recently perceived to be a high growth market for many telecoms providers, has been disrupted in a short space of time by specialist start-ups who have been able not only to make the service faster and more flexible for consumers, but have been able to compete on price. With their company valuations often priced at a discounted rate due to the rapidly-changing pace of their market, it is possible these new players may be acquired by established software firms before long.

BDO'S VIEW

A lot of expectations about future revenue growth focus on how well telecoms companies can integrate new technologies with their existing offerings. However, increasing pricing pressures and the threat of cable operators entering the market create uncertainty about the predictability of future revenue streams, and look set to bring further margin pressure. One consequence has been for some telecoms companies choosing to exit the data centres market in recent months to focus on their core areas of competency. What was just a short time ago considered an area of growth for many telecoms companies is now considered a strategic risk.



4. Altice, Annual Accounts 2013: http://altice.net/wp-content/uploads/2015/04/altice-fy-13-annual-accounts.pdf
5. SingTel Optus, Annual Report 2014: https://media.optus.com.au/wp-content/uploads/2015/07/Singtel-Annual-Report-2015.pdf

CYBER AND DATA SECURITY RISKS

REPUTATION MATTERS

Just under half, 42%, of the companies in our research, cite cyber threats and hacking as a major risk for their business. However, this is an issue which should concern all companies. As leading British telecoms provider BT notes, the intensity and frequency of cyber attacks facing their business has increased exponentially in recent years: "In the past year we have had to deal with an unprecedented increase in the volume and intensity of cyber attacks".[6] They are not alone in experiencing a marked upturn in the cyber threat.

Increasingly data security is an issue of executive level concern; boards and risk committees need to give sufficient time and attention to data risks. "We house a lot of personal records in our billing databases," says the CFO when we asked him about his exposure to cyber risk, "so we do worry about cyber security." What steps is his company taking to mitigate the risk? "Our audit committee and our board are fixated by cyber security. It has definitely become more expensive to ensure compliance with data security requirements, and we spend a lot on hiring people to identify our vulnerabilities and test our defences."

Aside from the risk of monetary penalties for failure to adequately protect sensitive customer data, security failures will undermine customer confidence, damage brand reputation and therefore shareholder value. Rostelecom, Russia's leading telephony provider outlines the risks posed by data breeches. "If leaks of confidential information, including information relating to our subscribers, occur it may negatively impact our reputation and our brand image and lead to a loss of market share, which could materially adversely affect our business, financial condition, results of operations or prospects or the value of the Shares."[7]

BDO'S VIEW

The reputational risk for telecoms companies involved in data breaches is huge; loss of customer trust is a commodity that is not easily replaced. With the cost of compliance and data security increasing, companies need to ensure they set aside sufficient investment and have the necessary skills to deal with any possible future threats.

6. BT, Annual Report 2015: http://www.btplc.com/Sharesandperformance/Annualreportandreview/pdf/2015_BT_Annual_Report.pdf
7. Rostelecom, Annual Report 2014: http://report2014en.rostelecom.ru/reports/rostelecom/annual/2014/gb/English/1060/risk-management.html

REGULATORY RISKS
THE COST OF COMPLIANCE

Although the proportion of companies citing regulation as a significant concern has dipped slightly compared with 2015 (42% vs. 45%), this remains a hot issue for many telecoms companies, particularly those in North America and Europe. Issues on top of the regulatory agenda for telecoms companies include the European Commission's Digital Single Market initiative, and recent EU consultation about the treatment of fixed and mobile termination rates. Net neutrality regulations worldwide impose new obligations with regard to coverage that require telecoms companies to set aside further investment for capital expenditure.

Our research reveals that the EU's Digital Single Market regulations and notably its implications on:

- spectrum policy and management
- roaming
- net neutrality

are of significant concern to companies located in the region, and is expected to have a demonstrable impact on profitability. For example, Germany's Deutsche Telekom in their most recent reporting round state that, "The EU's creation of a single digital market, with the abolishment of roaming charges and promulgation of net neutrality, will affect the company's bottom line".[8] Although the full extent of the impact of these changes is as yet unknown, the regulation of roaming revenues is anticipated to have a major impact on operators. New changes coming into place in 2017, will have a measurable impact over the medium to long-term.

The implications of net neutrality regulations also poses a concern for telecoms providers. When asked about his regulatory burden, the CFO we interviewed explains, "Regulations around net neutrality are having an undue impact. All the capital investment is being put together by telecoms companies, with content providers not sharing in this burden. It is like we are a toll road provider and we can't charge a different toll for a massive truck compared with a small car." Does he see a way forward? "We are seeing a gradual move within the industry towards more metered services, with customers being charged more if they exceed their monthly limits," he says.

BDO'S VIEW

We see a lot of change happening around the telecoms regulatory framework, particularly in Europe. All the major players consider this to be a significant risk for their business. As regulation becomes more centralised in the EU, and regulators elsewhere take a more active approach in their respective markets, operators need to change certain aspects of their strategies or risk significant loss of revenues over the medium-term.

8. Deutsche Telekom, 'Risks and Opportunities': http://www.annualreport.telekom.com/site0216/management-report/risk-and-opportunity-management/risks-and-opportunities.html

KEY QUESTIONS
FOR YOUR COMPANY TO CONSIDER

Telecoms executives need to be aware of the various risks shaping their industry and should act on them accordingly.

How confident are you that you can adapt to the disruptive market conditions ahead to ensure your company thrives? To help assess how prepared your company is, consider the following questions about the five most significant risks facing telecoms companies:

1 FINANCE RISKS

- How significant is the impact of fluctuations in interest rates and in currency markets for your company?
- Where are the opportunities to cut costs in your business to free up cash for short-term cashflow and long-term investments?
- How easy will it be to gain access to the capital you need to fund your growth strategies?

2 RISKS OF CHANGING CUSTOMER NEED

- How can you bundle existing services or complement your services to sell more complete solutions to clients?
- Is your level of customer service up to the standard that customers expect?
- What skills and competencies will be critical for your business as it adapts to the changing needs of customers in the short and long term?

3 RISKS FROM NEW TECHNOLOGY AND COMPETITORS

- How well positioned is your company to take advantage of merger and acquisition opportunities?
- How much of a risk does the rise of new entrants pose to your business?
- Is your level of investment in technology and R&D sufficient enough to allow you to compete with new entrants?

4 CYBER AND DATA SECURITY RISKS

- How secure is your IT infrastructure against potential data breaches or cyber threats?
- Where is further investment required to ensure continued security of your data?
- To what extent do you have access to real time information to allow you to monitor risks to your IP and data?

5 REGULATORY RISKS

- What will be the impact of the Digital Single Market on your business?
- How easy is it to manage varying regulatory regimes in the different jurisdictions in which you operate?
- How well-resourced is your company to monitor changes in regulation and engage in constructive dialogue with regulators?

FOR MORE INFORMATION CONTACT:

AUSTRALIA
SEBASTIAN STEVENS
Partner,
Corporate Finance

+61 2 9240 9725
sebastian.stevens@bdo.com.au

BAHRAIN
ARSHAD GADIT
Partner,
Assurance Partner

+973 337 77786
arshad.gadit@bdo.bh

BELGIUM
BERT KEGELS
Partner,
Audit and Assurance

+32 2 775 30 18
bert.kegels@bdo.be

BRAZIL
VITOR ALMEIDA
Partner,
International Liaison Partner

+55 11 3848 5880
ilp.vitor.almeida@bdobrazil.com.br

CANADA
SCOTT RODIE
Partner,
Audit and Assurance

+1 514 931 5796
srodie@bdo.ca

EGYPT
MOHANED KHALED
Partner,
Tax

+20 2 3303 0701
m.khaled@bdo.com.eg

FINLAND
JAN KOVERO
Director,
Business Consulting

+358 50 370 35 36
jan.kovero@bdo.fi

FRANCE
FREDERIC LEGER
Partner,
Audit and Assurance

+33 30 57 73 74
frederic.leger@bdo.fr

GERMANY
CHRISTIAN GOETZ
Leader of global Telco team,
Corporate Finance

+49 699 594 1514
christian.goetz@bdo.de

INDIA
AASHISH GUPTA
Partner,
Risk Advisory Services

+91 989 1914 272
aashishgupta@bdo.in

ISRAEL
YANIV COHEN
Partner,
Assurance

+972 3 638 0140
yanivc@bdo.co.il

JORDAN
MAZEN JABER
Partner,
Audit

+962 6 5816 033
mjaber@bdo.com.jo

KUWAIT
ABDALLAH K. FARHAT
Partner,
Audit and Assurance

+965 229 57567
abdallah.farhat@bdo.com.kw

NETHERLANDS
HANS DE ROOIJ
Partner,
Audit and Assurance

+33 30 57 73 74
hans.de.rooj@bdo.nl

RUSSIA
IRINA SMIRNOVA
Partner,
Audit and Assurance

+7 495 797 5665
i.smirnova@bdo.ru

UK
DAVID MITCHELL
Partner,
Valuations

+44 20 7893 3470
david.mitchell@bdo.co.uk

USA
TOM MANNION
Director,
Valuations and Business Analytics

+1 404 979 7130
tmannion@bdo.com

HB008543

www.bdointernational.com