2015 TELECOMMUNICATIONS RISKFACTOR REPORT

A MARKET OF DISRUPTION AND CHANGE: TELECOMS RISK FACTOR REPORT 2015

Global telecommunications, once regarded as among the most stable of all industry sectors, has witnessed widespread and disruptive change in recent years. The industry is undoubtedly in a period of significant transition, but to what? Our research among 60 of the leading global telecoms companies reveals no section of the market is immune from game-changing forces such as technology change, competition and consolidation, and changing customer behaviours. Each of these factors have the potential to reshape fundamentally the relationships telecoms companies have with their customers, suppliers and other value chain partners.

Against this background of varied disruption and change, what do telecoms companies identify as their most significant and immediate risks? What approaches are telecoms companies taking to manage and mitigate these risks? And have they got their priorities right: do the risks they identify align with the challenges that are likely to have the most impact on their future performance?

To answer these questions BDO has investigated the risks self-reported by 60 of the largest fixed line and mobile telecoms providers across 13 different global markets in their most recent annual results statements. Our analysis of their risks highlights an uncertain future ahead, but a willingness among many telecoms companies to embrace risk in pursuit of greater opportunities.

AN INDUSTRY IN FLUX: FIVE FUNDAMENTAL RISK FACTORS FOR TELECOMS

Although each company faces its own set of individual risk and challenges, across the sixty companies we investigated there are common concerns about the major risks and opportunities faced by the sector both now and in the future.

1.	Forex / currency fluctuations	82%
2.	Interest rate fluctuations	81%
3.	Access to credit	76%
4.	Liquidity and cash flow risks	74%
5.	Increased competition	58%
6.	Unfavourable changes to regulation	55%
7=	Service and network interruption	52%
7=	Macroeconomic uncertainty	52%
9=	Fast arrival of new technologies	48%
9=	Maintaining data privacy	48%
11=	Increasing costs	47%
11=	Overdependence on suppliers	47%
13	Regulatory change and uncertainty	45%
14=	Technology substitution	44%
14=	Adapting operations to market changes	44%
14=	Climate change / natural disasters	44%
17=	Changing customer demand	42%
17=	Supplier error	42%
19=	Cyber security / data hacking	37%
19=	Reputational risk	37%
21=	Health risks / emissions	35%
21=	Unfavourable litigation	35%
23	Infrastructure / poor capital investment	31%
24=	Access to sufficient spectrum capacity	27%
24=	Recruiting and retaining talent	27%
26=	Failure to meet service obligations	26%
26=	IP infringement	26%
28=	Customer dissatisfaction	24%
28=	Adverse impacts of acquisition or sale	24%
30	Dependence on key personnel	23%

Figure 1: The top 30 risks identified by telecoms company (% citing in annual report)

Figure 1, for example, shows that 82% of the companies we investigated identify risks surrounding forex and exchange rate fluctuations. With significant movements in currency markets in recent months, particularly in Euro and Dollar, how companies denominate their earnings and contractual obligations could have a massive impact on financial performance. Other significant risks identified range from increased competition (cited by 58%) and data privacy (48%) to unfavourable litigation (35%) and IP infringement (26%).

As Figure 1 illustrates, the risks identified by telecoms companies are multiple and various. To simplify this long list we divide the risks into five categories as outlined in Figure 2. Taken together, these risk reflect the greatest areas of uncertainty facing telecoms companies today.

1	Competition and technology risks
2	Finance risks
3	Regulatory risks
4	Data and cyber security risks
5	Supply chain risks

Figure 2: The five main categories of risk for telecoms companies

1 COMPETITION AND TECHNOLOGY RISKS: REDRAWING INDUSTRY BOUNDARIES

A majority of telecoms companies (58%) cite increased competition as a risk. EE, a British mobile network operator and internet service provider, acknowledges in its most recent annual report that the mobile communications market is highly competitive: ***'Pressures are increasing as existing operators and other service providers seek to strengthen their market position'***, it says. These pressures have driven EE to take action through ***'close monitoring of customer trends and competitor activity in order to develop innovative customer propositions and retention campaigns'*** [1].

But what is driving increased competition in the telecoms market? Two interrelated factors are at work: consolidation and value chain disruption. Throughout 2014 and into 2015 M&A activity in the telecoms sector has been buoyant. Deals such as Comcast's proposed $45.2 billion merger with Time Warner Cable typify the way in which traditional boundaries of the telecoms sector are being redrawn [2]. In this deal, like other such as the proposed merger of EE and BT, two industry giants are coming together in an attempt to better compete in an increasingly consolidating market.

"I would expect recent levels of M&A activity to intensify further" says Christian Goetz, a Partner in BDO's Frankfurt office. ***"Until now much of the consolidation activity has been domestically-focused, but there have been a lot of discussions about cross-border mergers on a much larger scale."***

Many companies describe clear risks arising from market consolidation in their annual reports: merged entities can benefit from greater brand presence, a stronger financial position and a broader product offering. As a result established market participants may face margin pressure as prices for consumers drop and it may become more difficult to attract and retain customers.

Non-organic growth is therefore a becoming a more desirable strategy for many companies.

Value chain disruption through new technology is also reshaping the telecoms sector. Iliad, a French telecoms provider, acknowledges in its most recent annual report that the telecoms sector is ***'characterised by very rapid changes in technology and in the types of services and features offered to subscribers.'*** [3] Technological change is opening up the market to more agile, innovator competitors. Nowhere is this trend of innovative disruptors outgunning established market players better illustrated than in Apple recently replacing AT&T in the Dow Jones Index [4].

> ***"Pressures are increasing as existing operators and other service providers seek to strengthen their market position."***
>
> EE

An increase in wireless technologies is frequently cited as a major risk, with Century Link, a US communications company, highlighting that every traditional wired service now faces competition from at least one wireless provider [5]. The rising popularity of VOIP together with an increase in non-voice communications through social media, text and email is a further threat. The rapid development of technology often shortens the lifecycles of new products, which in turn causes their value to drop more rapidly after launch.

> ***"The rise of smart, connect products – the so-called 'internet of things' is driving a huge amount of change."***
>
> Tom Mannion
> Director, BDO USA

"The rise of smart, connected products – the so-called 'internet of things' – is driving a huge amount of change in telecoms" says Tom Mannion, Consulting Director in BDO's Atlanta Office.

"This fundamentally changes customer needs and expectations, and has allowed innovative disruptors to gain competitive advantage by rapidly building new capabilities," he says.

As media, technology and telecoms increasingly intersect, telecoms companies will need to collaborate more effectively with different value chain partners and explore ways of innovating their operating model to deliver value and better meet customer demands.

The companies best prepared to meet this challenge head-on are proactively investing in technology start-ups or developing internal innovation incubators to harness market-leading ideas and technologies. Deutsche Telekom, for example, plans to invest €500 million through its venture capital fund over the next five years [6].

1. EE, Statutory Accounts 2014
2. Financial Times, 'Time Warner Cable deal extends Comcast's geographic reach' 2014
3. Iliad, Annual Financial Report 2013
4. BBC News, 'Apple set to join Dow Jones replacing AT&T' March 2015
5. CenturyLink Inc., Annual Review 2013
6. Deutsche Telekom, 'Deutsche Telekom sets up one of the largest investment funds in Europe' 2014

2 FINANCE RISKS: CRUNCHING THE NUMBERS

Financial risk is high on the agenda for almost all telecoms companies: 74% cite liquidity and cash flow as a risk; more than three-quarters (76%) report access to credit as a risk, and fluctuations in interest rates and foreign exchange are cited as risk by 81% and 82% respectively.

While these risks are not unique to the telecoms sector, given the major players in the market are all complex, multinational operators, they are exposed to financial risk in a greater number of guises.

> ***"'Lack of access to credit is a significant risk for telecoms companies'."***
>
> Hans de Rooij
> Partner, BDO Netherlands

Huawei, a Chinese telecoms provider, highlights the risk posed by interest rates to its long-term debt and receivables, and the risk posed by currency fluctuations on its international borrowing, buying and selling [7].

These sentiments are echoed by telecoms companies across all major markets. KPN, a Dutch landline and mobile operator, draws attention to its use of "derivative financial instruments in order to reduce foreign currency exposure and to manage the interest rate profile" in its most recent annual financial statements [8]. Other companies note similar approaches to mitigate financial risks.

A significant risk factor that we found to be surprisingly absent through our research is the changes to financial reporting as a result of the new accounting standard IFRS 15. This standard determines when and how much revenue is recognised from customer contracts and has a significant impact especially on so-called multiple elements arrangements (e.g. a long-term mobile service contract combined with the sale of a subsidised handset) common in the telecommunications industry.

"In particular, smaller and medium sized companies are not yet prepared to comply with the requirements of the IFRS 15 standard," says BDO's Christian Goetz, ***"often that is because it requires a large investment in IT systems to actually be able to provide the necessary data and since apart from accounting and IT also other areas like sales and controlling are affected."***

7. Huawei, Annual Report 2013
8. KPN, Integrated Annual Report 2013

3 REGULATORY RISKS: SHIFTING GOALPOSTS

New and unfavourable regulation is cited as a risk by over half (55%) of the companies in our research. Although it is widely acknowledged that telecoms is a heavily regulated industry, companies in the sector cite three common risks posed by regulation:

- Regulations vary significantly by jurisdiction, making it difficult to implement consistent growth strategies or operational capabilities across markets;
- Regulators often control factors that are fundamental to how telecoms companies operate, and can remove certain business advantages that have been expensive to obtain;
- There is a perception that regulators have tended to favour smaller, disruptive market entrants in recent rulings.

One area in which this is particularly evident from our research is the regulation of spectrum and operating licences. Access to spectrum is critical for the continued existence of global telecoms companies.

"As the demand for spectrum increases, particularly in the US, regulators need to figure out how all companies can gain a fair opportunity to bid for these service", says BDO's Tom Mannion.

"We have seen instances where spectrum valuations can far exceed a company's market capitalisation, which is an unsustainable long-term position for creating an open and competitive telecoms market."

Telenor, a Norwegian-headquartered telecoms company, notes that in several of the countries in which it operates, ***'the government has imposed sector-specific taxes and levies as a measure to improve state finances,'*** and that this government intervention ***'may adversely impact the Group's business.'*** This is a concern shared by many.

> ***"Some new regulation is seen as favouring the smaller disruptive companies – there needs to be balance"***
>
> Arshad Gadit,
> Partner, BDO Bahrain

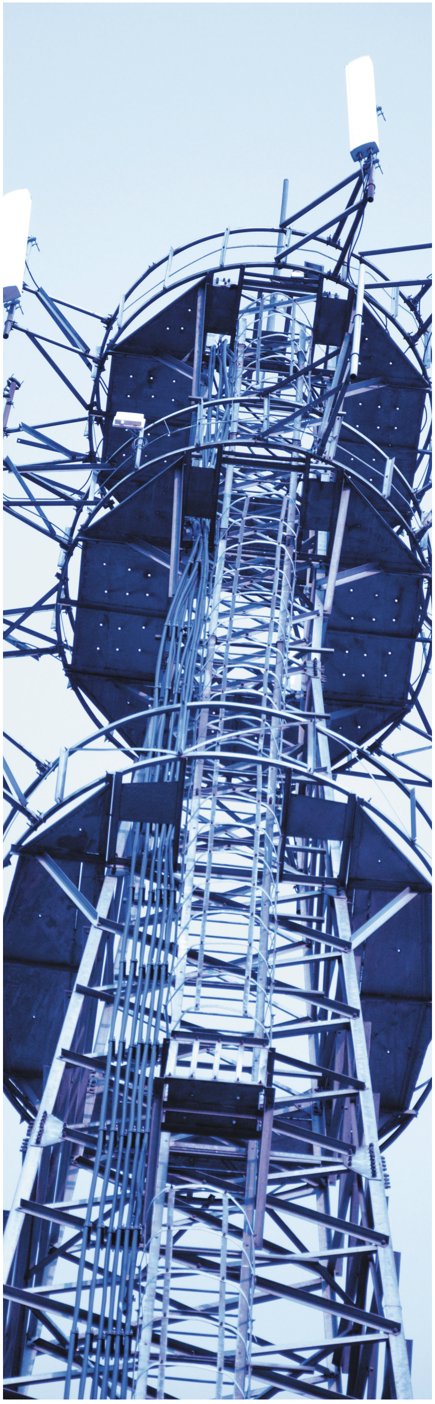
More aggressive regulation and increased government intervention in markets results in greater uncertainty for telecoms companies. This can make strategic decision-making more difficult and can results in delayed investment decisions. Companies are concerned that regulators shifting the goalposts creates a more unpredictable business environment which poses a risk to growth prospects.

In response to the changing regulatory environment, many companies are providing additional resource to monitor changes in regulation. In its annual report British telecoms company BT highlights its ***'team of regulatory specialists – including accountants and economist – who, together with legal expert and external advisers, continuously monitor and review the scope for regulatory changes.'***

In addition the team plays a role in maintaining ***'a dialogue with regulators and other key influencers to ensure BT's positions are understood.'*** [9] For BT, as for many others, a proactive approach to managing regulatory risk is the preferred approach.

9. BT Group plc, Annual Report and F-20 Form 2014

4 DATA AND CYBER SECURITY RISKS: HEADS IN THE CLOUD



Maintaining data privacy is cited as a risk by almost half (48%) of the telecoms companies in our research. A further 37% cite the issue of cyber terrorism and data hacking as a direct risk to their company. As the quantity of data held grows, so too does the risk. Large quantities of data necessitate the use of outsourcing and cloud computing, but these services are not without risk themselves.

In its most recent annual report the French mobile operator Alcatel-Lucent divides its data risks into four categories. These are risks to its own IP, risks to other valuable data, risks to IP entrusted to the company by third parties, and risks to other valuable data entrusted to the company by third parties. If this data is lost, damaged, or compromised the impact on the business could be dramatic, causing service disruption and significant reputational damage [10].

As AT&T also notes in its report, the knock-on impact of such a data breach is widespread, and may include: ***'significant expense, potential legal liability, loss of customers, and an impaired ability to attract new customers.'*** [11]

> ***"Loss of data may result in significant expense, potential legal liability, loss of customers, and an impaired ability to attract new customers."***
>
> AT&T

While there is significant risk to data from human and technological error, our research reveals companies are increasingly concerned about the risk posed cybercrime and cyber terrorism, which is becoming better funded, more frequent and more sophisticated.

Some companies, including Alcatel-Lucent, state that cyber-attacks have increased to such an extent that it is no longer possible to mitigate all risk that an attack will be successful.

However, steps can be taken to reduce exposure to risk in this area. In their annual reports many companies point to the use of robust physical defences to protect assets, data encryption, controlled access rights, real-time analysis and sharing of security intelligence, and continuous monitoring for intrusion, modifications and anomalies.

> ***"Customers are becoming increasingly concerned about data security"***
>
> Frederic Leger
> Partner, BDO France

10. Alcatel Lucent, Annual Report and Form 20-F 2013
11. AT&T Inc., Annual Review 2013

5 SUPPLY CHAIN RISKS: MANAGING THIRD PARTIES

It is not unusual for telecoms companies to have relatively short supply chains which rely on a limited number of supplies to deliver products or services. This over-dependence on a small number suppliers is cited as risk in almost half (47%) of the annual reports we surveyed.

"Over reliance on a limited number of suppliers may impact upon share prices"

David Mitchell
Partner, BDO UK

A further 42% say that supplier error is a risk to their operational capabilities. For example, Nordic telecoms operator TeliaSonera note that they are *"reliant on a limited number of suppliers to manufacture and supply network equipment"*, and Asian based Singtel-Optus make clear that *"the industry is dominated by a few key vendors for services or equipment."*[12]

This risk intensifies when companies require unique components that can be provided by only one supplier. This means that manufacturing processes cannot easily be shifted elsewhere should any part of the supply chain fail. Challenges can also arise during periods of non-forecasted increases in demand if supply chains are not sufficiently resilient.

Our research into the annual reports across the telecoms sector shows that more companies are routinely conducting supplier risk analysis as part of their procurement and supply chain processes, and where possible are introducing dual-sourcing strategies for key components.

12. SingTel-Optus, Annual Report 2014

TRANSFORMING RISK INTO OPPORTUNITY: WHAT DOES THE FUTURE FOR TELECOMS COMPANIES LOOK LIKE?

Our research clearly reveals that telecoms companies find themselves operating in a complex risk environment and increasingly have to address multiple risks arising from many directions. Yet this does not mean all risk is detrimental to a company's future success. As Dutch telecoms provider Ziggo states in its annual report, *"We strongly favour exploring new opportunities and are prepared to accept a reasonable amount of risk if these opportunities are likely to contribute to the realisation of our strategic, operational and financial goals."* [13]

We are prepared to accept a reasonable amount of risk if these are likely to contribute to the realisation of our strategic, operational and financial goals."

AT&T

In a rapidly evolving industry like telecoms, a pragmatic approach to risk can help companies to anticipate and respond to changing customer needs in order to retain competitive advantage and market share.

It is important to assess the level of risk appetite the company is prepared to embrace and to ensure that risk management priorities align with the areas identified as strategic opportunities.

To do this companies are adopting ever more sophisticated risk and governance frameworks. For example, in their recent annual report, Canadian telecoms provider Telus describes how executives are regularly involved in risk mitigation strategy discussions, and that the Board has regular oversight of an *"enterprise risk governance framework and assessment process, which includes evaluating perceptions of risk resiliency and tolerance."* [14]

13. Ziggo, Annual Report 2014
14. Telus, Annual Report 2013

IN CONCLUSION: KEY QUESTIONS FOR YOUR COMPANY TO CONSIDER

How confident are you of your company's ability to respond successfully in a market of disruption and change? It is useful to ask yourself the following questions about the most significant risks facing your company:

1	Competition and technology risks	• How will the growth of smart, connected devices impact your comapny's position in the telecoms value chain? • How prepared is your company to address competition from new market entrants head on? • To what extent do you plan to take advantage of a growing wave of M&A activity across the sector?
2	Finance risks	• How significant is the impact of fluctuations in interest rates and currency markets for your company? • What will be the implications for changes to IFRS 15 on the way that you report and recognise revenue? • How easy will it be to gain access to the capital you need to fund your growth strategies?
3	Regulatory risks	• To what extent is access to specturm a concern for your company? • How well-resourced is your company to monitor changes in regulation and engage in constructive dialogue with regulators? • How easy is it to manage varying regulatory regimes in the different jurisdictions in which you operate?
4	Data and cyber security risks	• How worried are you about the threat of cyber terrorism to your business? • What steps do you take to mitigate the risk assoiciated with data and cyber security? • To what extent do you have access to real time informaiton to allow you to monitor risks to your IP and data?
5	Supply chain risks	• How reliant is your organisation on a small number of suppliers and partners? • How regularly do you review your supply chain partnerships? • What steps are you taking to foster greater collaboration with suppliers and other third parties to enhance value for your customers and shareholders?

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