

Yang, Shengxing; Vialle, Pierre; Whalley, Jason

Conference Paper

Is disruption the second time around harder to do? The entry of Iliad into the Italian telecommunications market

31st European Conference of the International Telecommunications Society (ITS): "Reining in Digital Platforms? Challenging monopolies, promoting competition and developing regulatory regimes", Gothenburg, Sweden, 20th - 21st June 2022

Provided in Cooperation with:

International Telecommunications Society (ITS)

Suggested Citation: Yang, Shengxing; Vialle, Pierre; Whalley, Jason (2022) : Is disruption the second time around harder to do? The entry of Iliad into the Italian telecommunications market, 31st European Conference of the International Telecommunications Society (ITS): "Reining in Digital Platforms? Challenging monopolies, promoting competition and developing regulatory regimes", Gothenburg, Sweden, 20th - 21st June 2022, International Telecommunications Society (ITS), Calgary

This Version is available at:

<https://hdl.handle.net/10419/265674>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Is disruption the second time around harder to do? The entry of Iliad into the Italian telecommunications market

Shengxing Yang¹, Pierre Vialle^{2*} and Jason Whalley^{2,3}

1 – Université Paris Saclay, Paris, France

2 – Institut Mines-Télécom Business School, Evry, France

3 – Northumbria University, Newcastle, UK

**Corresponding author*

E: pierre.vialle@imt-bs.eu

Abstract

Although market entry has been a longstanding feature of mobile telecommunication markets, relatively few entrants have transformed the market(s) that they have entered. One such company is CK Hutchison, while another is Iliad, whose entry into the French mobile market profoundly and irrevocably changed it. This paper explores whether Iliad has been able to repeat this initial ‘success’ of disrupting the French market when it entered a second large European market, namely, Italy. We begin by outlining the circumstances that led to the entry of Iliad into the Italian market, and then chart its development as a new entrant. Through adopting such a longitudinal approach, we are able to demonstrate how Iliad has encountered numerous challenges and has adopted a different approach to that which was so successful in France. We conclude that disruption the second time around is more difficult to achieve.

Keywords: Iliad, disruption, Italy, mobile telecommunications

Paper presented at *Reining in digital platforms? Challenging monopolies, promoting competition and developing regulatory regimes*, 31st European regional conference of the International Telecommunications Society, 20th – 21st June 2022

DRAFT – DO NOT QUOTE WITHOUT PERMISSION OF THE AUTHORS

1 Introduction

Following the initial wave of privatisations, mobile telecommunications has been subject to a more extensive and longer-lasting phenomenon of new market entries and internationalisation (Curwen & Whalley, 2008; Whalley & Curwen, 2003, 2005; Vialle, 1998). This phenomenon has never paused, triggered by the issuing of new licences for each new generation of mobile technology, or by merger and acquisitions. In this article, we analyse the case of the entry of the French Iliad group in Italy in 2018.

The Iliad Group, and its founder Xavier Niel, initially focused on the French market where it was a pioneer of broadband Internet. It subsequently used the licensing of an additional 3G licence in the mid-2000s to enter the mobile telecommunications market. The launch of Free Mobile exemplifies successful disruption in practice. It has been extensively analysed under different perspectives, that is, as an empirical case study (Berne, Vialle & Whalley, 2019) or as an opportunity for theory building (Bourreau, Yutec & Verboven, 2021). However, the only other entry of the Iliad group in a major European market, namely Italy, has never been analysed from an academic perspective. Furthermore, by comparing the entries of Iliad into two large European markets, this article also allows us to highlight the role of the country context in moderating disruption.

After this successful entry into the French market, Iliad found it difficult to enter another large European market. Xavier Niel, through his investment holding company NJJ Capital has only been able to invest in small countries such as Monaco or Switzerland. This changed, however, in November 2015 when Xavier Niel acquired a significant stake in Telecom Italia (hereafter ‘TIM’), the incumbent telecommunications operator in Italy. The Italian market was particularly attractive because of its high consumption of telecommunication services, with TIM being considered a ‘slumbering giant’ ripe for new management. Having said this, a ‘better’ opportunity finally emerged in 2016, following the

decision made by two mobile operators (3 Italia and WIND) to merge. The European Commission decided that the merger could only go ahead if they shed sufficient assets to create a new rival (European Commission, 2016b), thus maintaining the number of mobile operators within the Italian market. These assets were divested, thereby creating the possibility for Iliad to enter the mobile market in 2018.

In this article, we describe and analyse how this opportunity arose and how Iliad has been able to seize it. We first address the market and competitive situation which led two incumbent operators to merge. Then we show how the perceived risk of insufficient competition resulting from this merger led regulatory authorities to mandate the merged company to shed network assets and frequencies. In addition, we describe the launch of Iliad Italia's services and the impact on the market and industry and show how the initial strong investment has been followed by an incremental process of leveraging complementary assets through several partnerships. Finally, we conclude by discussing the differences between the launch of Free mobile in France and the launch of Iliad Italia, and the role of country context.

To explore the entry and impact of Iliad into the Italian telecommunications market, we adopt a longitudinal case study approach (Yin, 2014). This enables us to answer a series of 'why' and 'how' questions around the entry of Iliad into the market (Eisenhardt, 1989; Yin, 2014), and sheds further light on the relatively limited theoretical understanding of the entry of operators into new markets (Eisenhardt & Graebner, 2007). Our analysis draws on data from a variety of sources (such as, for example, annual reports, regulatory statements, the trade and financial press) that were initially combined into a timeline. As the timeline was being developed, sources were triangulated. Those observations where sources disagreed were either removed or treated with a degree of caution in the subsequent analysis. It is worth noting that the sources were mainly published in either English or French, though some Italian sources were translated using Google Translate.

2 Literature review

The key elements of the disruptive innovation theory have been outlined in Christensen (1997) and Christensen and Raynor (2003). The theory is based on the existence of the performance improvement curve and the fact that the sustaining technology's performance will eventually exceed customers' needs. Disruption is a process that shows a particular pattern of evolution: disruptive companies start operating in low-end or marginal markets and progressively move upmarket in order to ultimately displace incumbents. The theory also argues that managers in incumbent companies behave rationally by applying what they have learned and concentrate on the most profitable markets. By abandoning low-end markets to disruptive competitors, incumbents may even obtain a sense that the strategy is appropriate as profitability improves in the short-term. But incumbents are nearly always dethroned. This has led some to argue that incumbents can only fight disruptive innovations by adopting themselves these innovations.

The extent to which the disruption theory can account for all cases of disruption has been challenged by several authors (Hagel, Brown, Wooll & de Maar, 2015; King & Baatartogtokh, 2015; Weeks, 2015). In particular, the lack of consideration for context contingency in the theory, such as the external environment or firm-specific factors, has been outlined (Vialle, Whalley & Parisot, 2018). Chesbrough (1999) found that, contrary to the USA, incumbents in the disk drive industry in Japan have not been disrupted. He attributes this difference to country-specific factors, such as regulations, culture and financing system. Weeks (2015) raises the issue of the possible characteristics that would make some industries more likely to be disrupted. Hagel et al (2015) place more emphasis on the external context: market conditions, such as product characteristics, demand characteristics and industry structure and catalysts, such as macroeconomic factors and public policy. The disruptive innovation theory also makes no link with firm-specific factors, and in particular with the resource and

competence approach which is dominant in strategic management and in the analysis of technologies (i.e., the distinction between competence-destroying technologies and competence enhancing technologies by Tushman and Anderson (1986)).

A related issue is that there seem to be other patterns of disruption than the ones presented in the theory. Hagel et al. (2015) analyse several cases in which incumbents have been significantly displaced and identify nine patterns of disruption. These patterns belong to two broad categories: harnessing network effects and transforming the value-cost equation. They also consider that disruption may differ between various industries according to their characteristics, and to the trends affecting them.

In regulated industries, such as telecommunications, disruption may also display different patterns (Curwen, Whalley and Vialle, 2019). Regulation plays a key role, and, to some extent, regulators are part of the disruption pattern. In addition, the entry of new competitors does not necessarily target low-end markets, and the core products and technologies are not significantly different from those offered by incumbents. It has also been observed that the ‘stories’ of disruption in different mobile markets may include some common traits, such as cheap packages or regulatory support. However, they may also differ significantly according to the context: the particular market situation at the time of entry or the characteristics of the disruptor (Curwen, Whalley and Vialle, 2019). For example, the entry of Free Mobile could be characterised by a low-cost model introduced in a cosy market by a brash entrepreneur. That’s different from the entry of Reliance Jio, which would be best described as a plain price penetration strategy by a large and wealthy conglomerate, applied to a fragmented market with a high number of non-users (Vialle, Whalley, Curwen & Pariscot, 2020).

3 Case study

Market overview

The Italian mobile telecommunications market is arguably highly competitive. Drawing on Figure 1 and Tables 1 and 2, it is possible to identify a number of trends that collectively shape how the market has developed. Firstly, since 2011 mobile revenues have fallen quite significantly, from almost €17 billion in 2011 to just under €11 billion in 2020. This reflects the presence of 3 Italia as a disruptive operator within the marketplace as well as regulatory pressures to reduce prices.

While revenues have declined consistently between 2011 and 2020 (inclusive), the number of connections has grown from 96 million to almost 104 million over the same period. Unsurprisingly ARPU (average revenue per user) has also fallen, from €29.25 per month in 2011 to €17.21 per month in 2020. Although 3 Italia entered the market with the licensing of 3G spectrum around the turn of the millennium, it remained a distant fourth within the market – by 2015, it had managed to attract 10 million subscribers, which was just half of the comparable figure for Wind. The two larger operators, TIM and Vodafone Italia, had 30 million and 24.4 million subscribers respectively.

Insert Figure 1 about here

Insert Table 1 about here

Insert Table 2 about here

To enhance its competitive position within the market, 3 Italia merged with WIND to dramatically increase its number of subscribers. Not only did the merger temporarily reduce the number of mobile operators to three, but it created a market structure where the companies were more or less of the same size. Subsequent to the merger, a new operator – Iliad Italia –

entered the market. While market shares have changed as the four operators compete against one another, the new entrant (Iliad Italia) has less than a third of the subscribers of the next largest operator (Wind Tre) which is, in turn, around 10 per cent smaller than the largest two companies (TIM, Vodafone Italia).

Figure 1 highlights another observable trend within the market, namely, the monetisation of tower assets by operators. TIM and Vodafone Italia, for example, merged the tower assets and then raised capital through an initial public offering (IPO) of the company in 2020. In addition to raising capital, the merger also contributed to the enhanced roll-out of 5G services across Italy. The merger of the tower assets of TIM and Vodafone Italia are indicative of another trend, that is, collaboration. Operators are not only collaborating among themselves in terms of tower assets, but also fixed (broadband) infrastructure as well. Recognising the diseconomies of scale that exist in fixed infrastructures and the need to bundle services together to enhance their competitiveness in the market, mobile operators have collaborated with fiber operators, private equity companies etc to provide fiber nationwide.

Investing in Telecom Italia

In late October 2015, it emerged that Iliad had acquired a stake in Telecom Italia (Thomson, 2015a). Through a combination of derivatives and options, Iliad owned a 11.2% stake in the incumbent (Abboud and Rebaudo, 2015), becoming the second largest shareholder in Telecom Italia after Vivendi. Since Vivendi acquired its initial stake in Telecom Italia in May 2015 (Abboud and Rebaudo, 2015), through the sale of its Brazilian subsidiary to Telefonica, it had steadily increased it from 8.3% to 20.2%. Vivendi described itself as a “long term investor” in Telecom Italia (Abboud and Rebaudo, 2015), with its investment helping it distribute content to achieve its objective of becoming a “media powerhouse in Southern Europe (Thomson, 2015b).

Just a day after Iliad's investment became public, Xavier Niel personally acquired stock in Telecom Italia so that the combined personal and company stake was just over 15% (Thomson, 2015b). The investment by Niel, both personally and through Iliad, raised concerns that the two French companies were acting in concert (Thomson, 2015b). While the stock market authorities started an investigation, it was noted that there was no love lost between Niel and Vicent Bolloré, the chairman of Vivendi, and that until recently both companies had competed in the French mobile telecommunications market (Thomson, 2015b).

The investment by two French billionaires resulted in Telecom Italia's share rising to a seven year high in November 2015 (Thomas, Thomson and Sanderson, 2015), and generated considerable speculation regarding their intentions. While both Vivendi and Iliad could increase the value of their stakes by cutting costs or selling Telecom Italia's Brazilian operations (Thomas, Thomson and Sanderson, 2015), they could also create value through breaking the company up or selling their stakes to a third party. Some progress appeared to have been made regarding the sale of TIM Brazil when it emerged in early November that a merger with Oi was being discussed (TeleGeography, 2015c).

Just a couple of days later, Telecom Italia announced its intention to dilute the stakes held by both French companies (Lennighan, 2015b). If this went ahead, then Vivendi's stake would fall to around 14% and Iliad's to about 10%. Marco Patuano, chief executive of Telecom Italia, also speculated that Vivendi could request changes to the board of the company (Thomas, 2015). Vivendi duly sought to increase the size of the board, nominating four directors that would help it influence the strategy of Telecom Italia (Lennighan, 2015c). Prior to the company's shareholder meeting in December 2015, a proxy advisor suggested that shareholders should vote against Vivendi's proposal to increase the board as this would result in the company being over-represented – it would control four out of 17 board positions yet own only 14% of the stock if the dilution went ahead (Lennighan, 2015d). This expansion of

the board was reported as being widely objected to by institutional shareholders (Za and Flak, 2015).

Niel further expanded his stake in Telecom Italia in December 2015, spending €225 million on options to raise his ownership to just over 15% (Za and Flak, 2015). Interestingly it was reported at the time of this announcement that as Niel does not actually own any shares in Telecom Italia he would not be able to attend the company's shareholder meeting (Za and Flak, 2015). At the meeting, Vivendi successfully increased the size of the Telecom Italia board, thereby consolidating its influence over the company, and defeated plans to dilute its stake (Lennighan, 2016).

Vivendi further increased its stake in Telecom Italia in early 2016, raising it to just below 25%, and as it sought to take a more active role in the company it came into conflict with the chief executive (Lennighan, 2016; Sanderson, 2016; Wood, 2016). As the chief executive was replaced in March 2016, questions continued to be asked regarding Vivendi's strategy for Telecom Italia (LEX, 2016). Similarly, questions continued to be asked about Niel's interest in Telecom Italia after he extended the expiry dates on the various options he held (Bembaron, 2016). On the one hand, some commentators felt that the investment was designed to exert pressure on Orange in France, while others viewed it as a reflection of Niel's desire to invest in the Italian telecommunications market. One commentator did note that Niel would be well placed if remedies were imposed on any merger that were to happen within Italy (Bembaron, 2016).

Entering the market at the second attempt

Over the years, there had been several rumours of mergers between mobile operators in Italy. One of these rumours centred on 3 Italia, owned by CK Hutchison and the smallest of the mobile operators in Italy, and TIM. Rumours emerged in early 2013 of a deal being discussed

between the two companies, with TIM being eager to remove a disruptive rival from the market (Bloomberg, 2013). Naguib Sawiris, the former owner of WIND stated that, in his opinion, the merger between 3 Italia and TIM would not be successful as the two companies possessed different cultures and operated different business models (TeleGeography, 2013a). TIM officially ended merger discussions in July 2013, noting that “none of the elements necessary to start negotiations are present (TeleGeography, 2013b). If the merger had proceeded it would have undoubtedly attracted regulatory scrutiny as the resulting company would control nearly half of the market (Lennighan, 2013).

Another rumour soon emerged, this time centred on a possible merger between 3 Italia and WIND. In December 2013, it was reported that VEON (formerly VimpelCom), the parent company of WIND, was considering its options: its Italian mobile operations were either to be sold, merged or refinanced (Thomas, 2013). While VEON explored how WIND could be refinanced, it also met with CK Hutchison (Thomas, 2013). In July 2014, it was reported that a merger between 3 Italia and WIND was almost finalised (Cellular-news, 2014), though a key problem – control – remained. This ultimately proved fatal, as on 24 October 2014 the talks failed (TeleGeography, 2014). VEON wanted a 50/50 arrangement, while CK Hutchison sought control of the joint venture.

The talks, however, resumed in early 2015 (Lennighan, 2015a). It was suggested that the talks were focusing on the issue of control (TeleGeography, 2015a), with possibility of 3 Italia acquiring WIND being discussed (Lennighan, 2015a). On 3 August 2015, CK Hutchison and VEON announced the merger of their Italian mobile businesses into a 50/50 joint venture. While announcing the merger did not necessarily mean it would occur, the Italian government did state that they would not intervene, thereby making the key regulatory decision maker the European Commission (TeleGeography, 2015b).

On 30 March 2016, the European Commission started an in-depth investigation into the merger, concerned that it would reduce competition within the market (European Commission, 2016a). More specifically, its concerns were threefold: innovation would be reduced, the negotiating position of mobile virtual network operators would be weakened and that consumers would suffer through a combination of reduced choice, decreased quality of service and higher prices. Margrethe Vestager, the commissioner in charge of competition policy, stated “We need to make sure that the proposed transaction will not lead to higher prices or less choice in mobile services for Italian consumers” (European Commission, 2016a).

Just a month after the Italian merger was announced, a similar one in the UK, between 3 UK and O2, was blocked by the European Commission (European Commission, 2016c). To avoid a similar fate, CK Hutchison and VEON agreed to spin-off selected assets (towers and spectrum) and help with the launch of a new mobile operator so that the number in the market remained at four. According to TeleGeography (2016a), several companies were interested in these assets. After Sky decided not to pursue its interest, there were three bidders for the assets: Fastweb, Iliad and Digicel.

On 10 June 2016, the European Commission postponed its decision on the merger to 8 September 2016 (TeleGeography, 2016b). In the meantime, CK Hutchison and VEON made further concessions to persuade the regulatory authorities to approve the merger. It was also reported that Iliad interest in the assets was more attractive to the European Commission than Fastweb’s due to its aggressive network roll-out history (TeleGeography, 2016c). CK Hutchison and VEON were said to be conducting exclusive negotiations with Iliad (Reuters, 2016). Just several days later, Iliad announced an agreement with CK Hutchison and VEON to acquire the divested assets. Furthermore, Iliad announced that Niel would also dispose of his stake in TIM (TeleGeography, 2016d).

However, Fastweb immediately made clear its unhappiness at this deal. It called on the European Commission to investigate Iliad's purchase of the assets, stating: "We hope that Iliad's proposal can guarantee the same level of investment and development and we ask that it is submitted to consultation of the market by the Commission" (TeleGeography, 2016e). On 28 July 2016, it emerged that Niel had sold his stake in TIM, thereby clearing the way for Iliad to enter the Italian telecommunications market (TeleGeography, 2016f). On the 1 September 2016, the European Commission officially approved the merger of Wind and 3 Italia, subject to remedies, creating a 50/50 joint venture (European Commission, 2016b).

The remedies imposed by the European Commission were threefold (European Commission, 2016b). Firstly, the combined operator would divest part of its 3G and 4G spectrum holdings totalling 2 x 35 MHz, with Iliad paying €350 million (Iliad Group, 2018). Iliad would make an initial payment of €50 million in 2017, with the remainder due in the following two years. Secondly, the newly formed joint venture would share base station sites with Iliad, and thirdly, allow roaming until Iliad had built its own nationwide mobile network (European Commission, 2016b). Together, the latter two remedies would enable Iliad to offer nationwide mobile services faster than would otherwise be the case. Significantly, Iliad could request that the initial five-year agreement be extended for a similar period (Iliad Group, 2018).

Iliad enters the mobile market

In mid-2017, Iliad announced its intention to launch commercial mobile service in Italy in either late 2017 or early 2018 (TeleGeography, 2017b), investing around €1 billion to do so in the intervening period. Niel stated that Iliad would aim to grab 10% of the market and referred to the other telecommunication companies as being "the most hated by consumers in Europe" (Rosemain and Barzic, 2017), and, heralding a price war, stated that "Iliad will be looking to

beat the lowest priced tariffs currently available in Italy by around 10%” (TeleGeography, 2017b).

At the same time, Fastweb was continuing with its efforts to stop the launch of Iliad. It has petitioned the European Court of Justice to overturn the merger (Thomson Reuters Practical Law, 2017), highlighting the advantages it brought as an already established MVNO and fixed operator, unlike Iliad, who would be starting from scratch in Italy (TeleGeography, 2017a). In addition to external challenges, Iliad was also facing internal ones, experiencing problems associated with installing management teams across Italy. Perhaps inevitably, the launch in Italy was delayed until the second half of 2018 (TeleGeography, 2017c).

The natural gap between being able to enter the Italian market and actually doing so provided its rivals with the opportunity to position themselves for Iliad’s entry into the marketplace. In September 2016, the CEO of TIM stated that “Iliad’s entry into Italy does not worry us” (Reuters, 2016), noting that there would be no ‘surprise effect’ when entering the market and ‘countermeasures’ would be taken. To help TIM position itself for the entry of Iliad, at the end of 2016 it acquired Noverca, a virtual mobile operator (TeleGeography, 2016g). Similarly, Vodafone Italia indicated its willingness to compete against Iliad, with the group CEO suggesting that they price reductions and increases in data allowances were possibilities (Newsbeezer, 2018).

TIM moved first. At the end of March 2017, it launched a new brand – Kena Mobile – that offered a no-frills service with the cheapest package being priced at €3.99 per month for either 1,000 minutes or 4GB of data (Telecompaper, 2017). A more advanced package cost €9.99, bundling together minutes, data and SMS (600 minutes, 6GB data and 100 SMS).

Just a handful of days prior to Iliad launching its services, AGCOM announced that 5G spectrum would be auctioned in September 2018 (TeleGeography, 2018a). The auction would raise at least €2.5 billion for the government, providing spectrum to operators that would expire

in 2037. 700 MHz spectrum would be reserved for Iliad, though it would not be available until the middle of 2022 (TeleGeography, 2018a).

Competing for subscribers

On 29 May 2018, Iliad launched its services in Italy. To attract subscribers, it offered a bundle of unlimited minutes and SMS, along with 30GB of data, to the first million customers (Agnew, 2018; Iliad Italia, 2018). Although a one-off €9.99 fee for the SIM card would be charged, the bundle would cost just €5.99 per month. Iliad, in its promotional material, highlighted three key features of the bundle: it will not change in future, the lack of hidden costs, and the fast activation of the SIM card. Iliad Italia was able to take advantage of its roaming agreement to offer the bundle nationwide, and to encourage purchases it opened over 100 retail outlets and installed vending machines in shopping centres to complement online purchases (Agnew, 2018).

The promotion appears to have been a success. Iliad announced that approximately 300,000 subscribers had signed up in just 30 days, with around 40% of porting requests coming from customers who previously used Wind Tre (TeleGeography, 2018b). 50 days after services had been launched, Iliad Italia had one million subscribers and thus expanded its introductory offer to another 200,000 users (TeleGeography, 2018c). Iliad Italia announced that it had two million subscribers 100 days after its services were launched (TeleGeography, 2018d). At the same time, it announced a new product that bundled 50GB of 4G data with unlimited minutes and SMS for €7.99 per month (TeleGeography, 2018d).

Although TIM has launched a low-cost brand (Kena Mobile) prior to Iliad Italia entering the market, the other two incumbents had not reacted in a similar fashion. The launch of Iliad Italia appears, however, to have prompted them into action. Vodafone Italia launched its low-cost brand – Ho Mobile – on 22 June 2018, less than a month after Iliad Italia was

launched (Newsbeezer, 2018). The introductory offer, which combined unlimited calls and SMS with 30GB of speed-limited 4G data for €6.99, was valid until the end of July 2019. Wind Tre also launched its own low-cost brand, Very Mobile, but two years later, perhaps because the management was distracted by CK Hutchison gaining outright control of the company from VEON. Very Mobile was launched in March 2020, with the first 20,000 subscribers receiving a special offer of unlimited minutes and SMS and 30GB of 4G data for €4.99 per month (Telecompaper, 2020a).

5G

The 5G auction ended in early October 2018. Initial bids from the participants roughly corresponded to the government's minimum expectation, but over the course of the auction the value of bids increased so by the time it closed the five successful bidders had agreed to pay €6.55 billion for spectrum (TeleGeography, 2018e). As shown in Table 3, TIM paid the most for spectrum (€2.407 billion), followed by Vodafone Italia (€2.400 billion), Iliad Italia (€1.19 billion), Wind Tre (€516.5 million) and Fastweb (€32.6 million) (TeleGeography, 2018f – 3 Oct). Spectrum in the 3.6 GHz and 3.8 GHz bands attracted bids totalling €4.35 billion (TeleGeography, 2018f). There was some concern expressed that the high licence fees would result in higher retail prices for consumers (TeleGeography, 2018f).

Insert Table 3 about here

Just a month after the auction concluded, rumours emerged that TIM and Vodafone Italia were discussing the possibility of sharing their 5G infrastructure. Not only would this reduce costs, but it would also enable the faster rollout of 5G (TeleGeography, 2018g). In February 2019, the two operators agreed to start a sharing 5G infrastructure project as well as

combine their passive 4G infrastructure of around 22,000 sites (TeleGeography, 2019a). Aldo Bisio, CEO of Vodafone Italia, was quoted as stating “5G represents a technological breakthrough that will have a profound impact on society, and that requires investment, efficiency, and a rapid rollout. This has led us to broaden the scope of our existing successful partnership” (TeleGeography, 2019a). A couple of months after this announcement, in June 2019, Vodafone Italia launched Italy’s first commercial 5G, with the CEO heralding the transformational impact of the technology (TeleGeography, 2019b). This launch was followed later on in the same month by that of TIM (TeleGeography, 2019c). These services, which were limited geographically to Rome and Turin, also had a maximum download speed of 2 Gbps and upload speed of 300 Mbps (TeleGeography, 2019c).

On the same day, Wind Tre and Fastweb announced a 10-year agreement to roll out 5G (Fastweb, 2019a). The partnership would aim to cover 90% of the population by 2026, providing Fastweb mobile customers with the ability to roam nationally and providing Wind Tre with wholesale access to Fastweb’s network so that it can improve its fixed services. Around a year after Vodafone Italia had launched its 5G services, Wind Tre announced its own 5G rollout plans. It could cover at least 10 cities by the end of 2020, expanding to 70 in 2021 (Telecompaper, 2020b). As its partner in the rollout, Fastweb, which became the fifth Italian mobile operator in 2019, announced that its own 5G services would commence on 27 December 2020 (TeleGeography, 2020c).

Iliad Italia was noticeable by its absence from the collaboration that was occurring in the Italian market to rollout 5G services. Iliad Italia sought to stop the network sharing agreement between Wind Tre and Fastweb (TeleGeography, 2020a) and had also tried to prevent the collaboration between TIM and Vodafone Italia (TeleGeography, 2020b). The CEO of Iliad Italia justified its invention on the grounds of being concerned that the partnership may “distort the market” (TeleGeography, 2020b). These interventions appear to have little

effect on the market, other than perhaps to alienate Iliad Italia from its rivals. In early 2021, a regional court in Italy rejected Iliad's request to block the partnership between Wind Tre and Fastweb (TeleGeography, 2021a), with it being reported that Iliad had been told it did not have the right to block a commercial agreement between two private companies. Iliad Italia finally launched its own 5G services at the end of 2020 (Telecompaper, 2020c), covering 27 cities across Italy.

4 Discussion

The entry of Iliad Italia has obviously been less disrupting than the entry of Free Mobile in France. After two years, Free Mobile had already achieved a market share of 12%, while Iliad Italia had only obtained an 8% market share¹, despite a more aggressive pricing. The introductory offer was priced at €5.99 per month for unlimited calls, SMS, and 30GB of data for the initial customers, followed by a new package costing €7.99 per month with unlimited calls and SMS and 50/80 GB of 4G data, and finally € 9.99 for unlimited voice, SMS and 120GB of 5G data. In France, the price of the launch package was €19.99 (€15.99 for previous broadband Internet subscribers) for unlimited calls to 40 countries, unlimited SMS and MMS, and 3 GB of data (Berne, Whalley & Vialle, 1999). The price of this package has remained constant, but with a data allowance which has continuously improved in terms of its quantity and quality (currently 210GB of 4G/5G data)².

Insert Table 4 about here

¹ Its market share has stabilised at the 10% level, while Free Mobile's market share has stabilised around 15%.

² The Free Mobile price list can be found at <https://mobile.free.fr>

The different conditions in the French and the Italian market at the time of entry may offer an explanation as to the different levels of disruption between the two countries. At the time of Free Mobile's launch, the French market was not very competitive (Berne, Whalley & Vialle, 2019). There were only three mobile operators which did not compete aggressively against one another, and prices tended to be higher than in other OECD countries. Moreover, the penetration rate of mobile services was lower than the EU-27 average, so there was a significant number of non-users. In Italy, in contrast, the market was very competitive with four mobile operators, prices were low, and the market was saturated. The saturated nature of the market is illustrated by Table 4. While the number of mobile subscribers (M2M excluded) slowly increased after the entry of a new operator in France, the market, in contrast, slightly declined in Italy. The effect of the entry on the mobile price index in France after 2 years (-39.32%) confirms that the French market was far from being competitive.

Another explanation is that there was no element of surprise in the entry of Iliad into Italian. The case of the entry of Free Mobile in France was widely known in the telecommunications industry, so the incumbents were aware of what it entailed and thus what to expect from Iliad. Therefore, they were able to prepare their competitive response(s) and were able to launch cheap sub-brands when Iliad Italia started its operations. Furthermore, the incumbent operators in Italy were already considering cost reduction remedies prior to Iliad's entry, with infrastructure sharing (passive and active) being particularly relevant given the scale and nature of the benefits that it would bring.

Another difference between the two countries relates to how Iliad entered the market. In France, Iliad was already well established as a broadband provider before it entered the mobile market. It was, therefore, able to leverage its existing assets (brand, online presence) and subscriber base to facilitate its entry into the mobile market. This stands in stark contrast to Italy, where Iliad was entering the country for the first time. As a result, it had neither a

brand nor existing subscriber base to draw on. This placed it at a disadvantage, especially when the incumbents launched their own cheaper brands. It is, however, worth noting that although the incumbents launched their own brands, they did not compete against Iliad Italia on the basis of price. As Table 5 clearly demonstrates, Iliad is cheaper than its rivals in the market. This undoubtedly contributed to its growth in the market, especially in the period immediately after its launch, but that its market share has stabilised at around 10% suggests that price alone is unable to tempt subscribers to switch operators.

Insert Table 5 about here

In contrast to France, when Iliad entered the Italian market, it did not have an existing business to draw upon. Iliad initially entered the French broadband market before acquiring a mobile licence and launching Free Mobile. This provided it with complementary assets, in terms of subscribers, brand awareness and resources, which it could leverage to facilitate its entry into the mobile market. Furthermore, as a French company, Iliad was aware of the context – institutional and commercial – into which it was expanding. This sharply contrasts with the situation in Italy, where Iliad lacked any subscriber base or brand awareness to help it expand into the mobile market. Moreover, Iliad was not Italian. National sensitivities around TIM were heightened when Vivendi and then Iliad acquired substantial stakes in the incumbent, but they were exacerbated by the aggressive tone adopted by Niel / Iliad as it launched its services. After Iliad Italia launched its services, the tone adopted by the company did change, becoming less bullish and aggressive over time. While it is difficult to ascertain the extent to which this influenced the commercial decisions of rivals, it is worth noting that once a more constructive tone was adopted Iliad was able to form collaborative arrangements with its rivals.

The limitations of these collaborative arrangements, and perhaps of the strategy adopted by Iliad Italia more generally, were questioned in early 2022 when rumours emerged of a merger between the Italian subsidiaries of Vodafone and Iliad (TeleGeography, 2022a). Such a merger would dramatically expand Iliad's presence in Italy, providing it with the scale economies needed to compete in the market against several significantly larger incumbents. Although Vodafone, under pressure from activist shareholders to improve its performance, had announced it was looking for merger possibilities (TeleGeography, 2022b) it ultimately rejected the approach. While some considered the bid, which was quoted as being over €11 billion (Abboud & Gross, 2022), as being a "full price" for subsidiary, it was rejected as it was "not in the best interests of shareholders" (Lepido, Ebhardt & Nair, 2022). This failure hints at the limited financial resources available to Iliad, whose failed bid was made in conjunction with Ajax (Lepido, Ebhardt & Nair, 2022), which suggests that it will not be able to buy growth and thus will need to organically grow its subscriber base. This, in turn, underlines the importance of a more collaborative approach by Iliad Italia to growing in the market.

5 Conclusion

In this paper we have explored recent developments within the Italian telecommunications market. More specifically, we have described and analysed how an opportunity to enter the market arose and how Iliad sought to seize it. This opportunity that Iliad seized emerged because of the challenging and highly competitive nature of the Italian telecommunications market, where the merger between 3 Italia and WIND being approved subject to the combined company divesting assets to create a new operator. This provided the means through which Iliad could enter the Italian telecommunications market.

As a new entrant in France, Iliad had proved itself to be a disruptive operator. There were high hopes that Iliad would repeat this in Italy, bringing widespread benefits to consumers

and maintaining the competitive nature of the market. Iliad in this scenario would replace 3 Italia as the disruptive force within the market. While a reasonably convincing argument can be made about the positive impacts emanating from the entry of Iliad, it needs to be tempered with a degree of caution. Iliad Italia competed on the basis of reduced prices and generous allowances of minutes and data, similarly to what it did in France, and managed to rapidly attract subscribers in the aftermath of its launch. This, however, was countered by the incumbents launched low cost brands and bundling their fixed and mobile services together.

The aggressive marketing and regulatory approach adopted in France was initially replicated in Italy, but this failed with the result that a more conciliatory tone emerged. This appears to be fruitful, as Iliad has been able to expand its network infrastructure and enter the broadband market. This bundling is similar to France, but the significant difference is that in Italy the company has adopted a collaborative approach to gain access to key assets. What emerges, therefore, from our analysis is the identification of some similarities between the strategy of Iliad in the two countries, but there are also significant differences in how they were executed. Moreover, the difficulties encountered by Iliad in Italy were compounded by its initial lack of fixed infrastructure, which influenced how it competed in the market. Thus, if we return to the question raised in the title, disruption a second time does appear to be more difficult.

Figure 1 – Major events in the Italian telecommunications market, 2011 – 2021

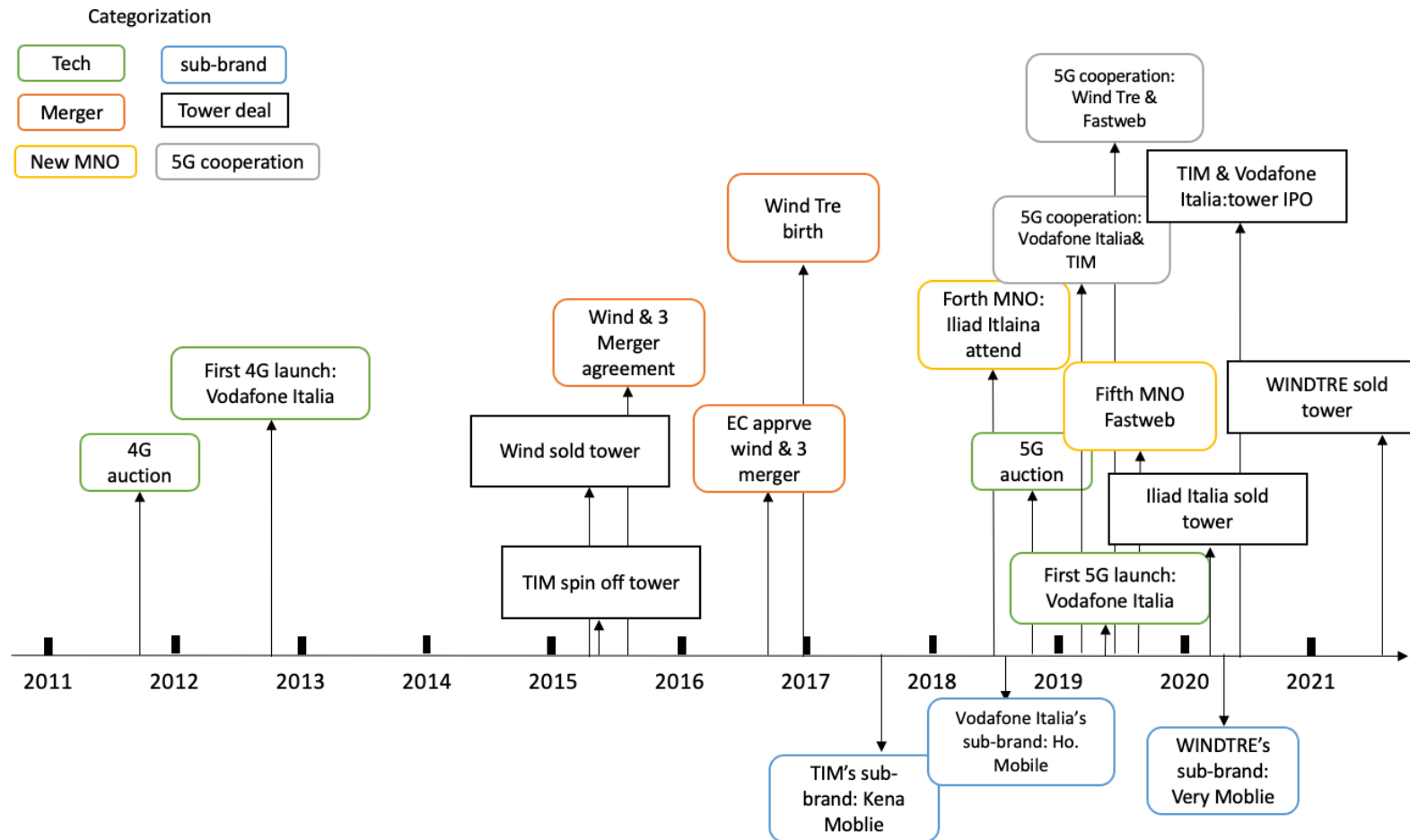


Table 1 – Timeline, Italian mobile telecommunications market, 2011 – 2022 (May)

Year	Date	Event
2010	October	VimpelCom (now VEON) buys Wind Italy
2011	October	LTE(4G) spectrum auction
2013	December	Rumours about Wind and 3 Italia merger circulate
2015	August	CK Hutchison and VimpelCom agree to merge their Italian operations into 50/50 joint venture
	October	Xavier Niel (CEO of Iliad) becomes Telecom Italia's second-largest shareholder
2016	January	Telecom Italia unifies its brand as TIM
	March	European Commission investigates Wind & 3 Italia merger
	June	Remedies for Wind and 3 Italia merger, sufficient to allow a new entrant, announced. Fastweb, Iliad and Digicel interested
	July	Xavier Niel exits TI, sell his vote rights
	September	European Commission approves Wind and 3 Italia merger, with Iliad gaining the opportunity to enter the market
2017	January	Wind Tre officially launched
	March	TIM introduce a low-cost sub-brand: Kena Mobile
2018	May	Iliad Italia officially launches in Italy as the fourth Italian MNO
	June	Vodafone Italia introduces a low-cost sub-brand: ho. Mobile
	July	Iliad Italia attract 1 million users in 50 days
	September	Iliad Italia hits 2 million users
	October	5G spectrum auction in Italy raises €6.55bn for the government
2020	July	Deal between Iliad Italia and Open Fiber in the fixed market confirmed
2021	November	KKR makes a bid for TIM
	December	Iliad Italia ends the year with 8.5 million subscribers
2022	January	Rumours emerge of a possible merger between Iliad Italia and Vodafone Italia
	February	Vodafone rejects a bid from Iliad Group for its Italian subsidiary

Source: Compiled from multiple sources by the authors

Table 2 – Market statistics, Italian mobile telecommunications market, 2011 – 2021 (September) (inclusive)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 (Sept)
Mobile revenues, € billion	16.81	16.87	15.11	13.66	13.51	13.94	13.73	12.66	11.66	10.86	-
SIM total, million	96.0	97.2	96.9	94.2	92.5	98.2	100.2	103.6	103.9	103.9	105.8
SIM human, million	-	-	-	-	-	86.0	83.9	82.6	79.6	77.6	78.0
TIM, SIM, million	32.3	32.1	31.2	30.4	30.0	29.6	30.7	31.9	30.9	30.1	28.8
Vodafone Italia, SIM, million	30.0	29.4	28.5	25.5	24.4	28.9	30.2	30.2	29.9	30.0	28.5
WIND, SIM, million	20.9	21,7	22.3	21.6	21.1	-	-	-	-	-	-
3 Italia, SIM, million	9.2	9.5	9.7	10.0	10.1	-	-	-	-	-	-
Wind Tre, SIM, million	-	-	-	-	-	32.5	31.2	30.4	28.6	26.7	24.8
Iliad Italia, SIM, million	-	-	-	-	-	-	-	2.8	5.3	7.2	7.7
ARPU, € / month	29.25	29.50	26.16	22.22	22.08	22.74	22.38	20.50	18.72	17.21	-

Sources: Compiled by the authors from a variety of Agcom publications

Table 3 – 5G auction, 2018

Operator	Band: 700 MHz (FDD)		Band: 3.6-3.8 GHz		Band: 26 GHz		
	Quantity	Price €m	Quantity	Price €m	Quantity	Price €m	Price €m
TIM	2×10 MHz	680.2	80MHz	1694	200MHz	33.0	2407.2
Vodafone Italia	2×10 MHz	683.2	80MHz	1685	200MHz	32.6	2400.8
Wind Tre	-	-	20MHz	483.9	200MHz	32.6	516.5
Iliad Italia	2×10 MHz	676.5	20MHz	483.9	200MHz	32.9	1193.3
Fastweb	-	-	-	-	200MHz	32.6	32.6
Total	60 MHz	2039.9	200 MHz	4346.8	1000 MHz	163.7	6550.4

Source: European 5G Observatory (2018)

Table 4 – Comparing the entries of Iliad in France and Italy

	Free Mobile	Iliad Italia
Market entry	January 2012	June 2018
Initial mobile technology generation	3G	4G
Price of main package	€5.99/7.99/9.99	€19.99 (€15.99 for broadband customers)
Market CAGR subscribers after 2 years (M2M excluded)	3.54%	-3.08%
Number of MNOs during pre-entry period	3	4
Initial roaming agreement	Yes	Yes
Change in obile price index after 2 years	-39.32%	-9.32%
Subscribers after 2 years (million)	8.04	6.26
Market share, % subscribers, after 2 years	12%	8%

Table 5 – A comparison of products offered by Italian mobile operators, 30 July 2021

	Type	Data	Voice	SMS	SIM fee, €	Activation fee, €	Monthly fee, €	Eligibility requirements
Iliad Italia	4G	80 GB	Unlimited	Unlimited	9.99	/	7.99	/
	5G	120 GB	Unlimited	Unlimited	9.99	/	9.99	/
Vodafone Italia	4G	50 GB	Unlimited	Charged	/	6.99	14.99	/
	5G	60 GB	Unlimited	Unlimited	/	6.99	14.99	Under 30 years old (if not, €18.99)
	Giga Family	Unlimited	Unlimited	Unlimited	/	/	9.99	Need buddle fixed line
TIM	4G	50 GB	Unlimited	Unlimited	20	5	14.99	/
	5G	50 GB	Unlimited	Unlimited	20	5	11.99	Under 25 years old
	SUPER FIX	Unlimited	Unlimited	Unlimited	20	5	11.99	Need buddle fixed line
WINDTRE	5G	50 GB	Unlimited	200 free	10	/	12.99	buddle a phone
	5G	70 GB	Unlimited	200 free	10	/	14.99	/
	Special 5G	Unlimited	Unlimited	200 free	10	/	9.99	Need buddle fixed line
Fastweb	5G	90 GB	Unlimited	100 free	/	/	7.95	/
	5G	150 GB	Unlimited	100 free	/	/	10.95	/
	5G	150 GB	Unlimited	100 free	/	/	7.95	Need buddle fixed line

Source: Compiled from the websites of the mobile operators.

Notes: MNOs offer different types of plans; here, we have picked their cheapest data and voice plans as on 30 July 2021. Their promotion price may change in the future.

REFERENCES

- Abboud, L. and Rebaudo, S. (2015) Iliad founder Xavier Niel buys Telecom Italia stake. Reuters, 29 October. <https://www.reuters.com>
- Abboud, L. and Gross, A. (2022) Iliad bids more than €11bn for Vodafone's Italian business. Financial Times, 9 February. <https://www.ft.com>
- Agnew, H. (2018) Iliad launches in Italy with low-cost offer. Financial Times, 29 May. <https://www.ft.com>
- Bembaron, E. (2016) Vivendi et Xavier Niel dans le piège italien, Le Figaro, 20 June, <https://www.lefigaro.fr>
- Berne, M., Vialle, P., and Whalley, J. (2019) An analysis of the disruptive impact of the entry of Free Mobile into the French mobile telecommunications market. Telecommunications Policy, 43 (3), 262-277
- Bloomberg (2013) Telecom Italia considers merger with Hutchison unit, April 2013. <https://www.bloomberg.com>.
- Bourreau, M., Yutec, S., and Verboven, F. (2021) Market Entry, Fighting Brands, and Tacit Collusion: Evidence from the French Mobile Telecommunications Market. American Economic Review, 111 (11): 3459-99.
- Cellular-news (2014) Italian network merger talks close to conclusion. 24 July. <https://cellular-news.com>
- Chesbrough, H. W. (2003) Environmental influences upon firm entry into new sub-markets: Evidence from the worldwide hard disk drive industry conditionally. Research Policy, 32, 659–678.
- Christensen, C.M. (1997) *The innovator's dilemma: when new technologies cause great firms to fail*. Harvard Business Press: Boston USA
- Christensen, C.M. and Raynor, M.E. (2003) *The innovator's solution: creating and sustaining successful growth*. Harvard Business Press: Boston USA
- Curwen, P. and Whalley, J. (2008) *The Internationalisation of Mobile Telecommunications: Strategic Challenges in a Global Market*, Edward Elgar: Chichester, UK
- Curwen, P., Whalley, J. and Vialle, P. (2019) *Disruptive Activity in a Regulated Industry – The Case of Telecommunications*, Emerald: Bradford, UK
- Eisenhardt, K.M. (1989) Building theories from case study research. Academy of Management Review, 14 (4), 532-550
- Eisenhardt, K.M. and Graebner, M.E. (2007) Theory building from cases: Opportunities and challenges. Academy of Management Journal, 50 (1), 25-32
- European Commission (2016a) Mergers: Commission opens in-depth investigation into proposed Hutchison/VimpelCom joint venture in Italy, March 2016. <https://ec.europa.eu>.
- European Commission (2016b) Mergers: Commission approves Hutchison/VimpelCom joint venture in Italy, subject to conditions, September 2016. <https://ec.europa.eu>.
- European Commission (2016c) Commission prohibits Hutchison's proposed acquisition of Telefónica UK, 16 May. <https://ec.europa.eu>.
- European 5G Observatory (2018) Italian 5G spectrum auction, October. <https://5gobservatory.eu>

- Fastweb (2019a) Fastweb and Wind Tre announce a strategic agreement for the deployment of a nationwide state-of-the-art 5G network. 25 June. <https://www.fastweb.it>
- Fastweb (2019b) Fastweb is the fifth Italian mobile operator. 30 July. <https://www.fastweb.it>
- Hagel, J., Brown, J.S., Wooll, M. and de Maar, A. (2015) Patterns of disruption: anticipating disruptive strategies in a world of unicorns, black swans, and exponentials. *Deloitte*. 12 November 12. <https://www2.deloitte.com>
- Iliad Group (2018) FY 2017 Management Report & Analysis, March 2018. <https://www.iliad.fr>
- Iliad Italia (2018) It's time for #Revolution Iliad. 29 May. <https://corporate.iliad.it>
- King, A. and B. Baatartogtokh (2015) How Useful is the Theory of Disruptive Innovation? *Sloan Management Review*, Fall, 77-90
- Lepido, D., Ebhardt, T. and Nair, D. (2022) Vodafone rejects \$13 billion Italy bid from Iliad, Ajax. *Bloomberg*, 10 February. <https://www.bloomberg.com>
- Lennighan, M. (2013) Telecom Italia, Hutch confirm the deal's off. *Total Telecom*, 5 July. <http://www.totaltele.com>
- Lennighan, M. (2015a) Italian mobile merger looms. *Total Telecom*, 17 February. <http://www.totaltele.com>
- Lennighan, M. (2015b) Telecom Italia share conversion to dilute Vivendi, Niel stakes. *Total Telecom*, 6 November. <http://www.totaltele.com>
- Lennighan, M. (2015c) Telecom Italia shareholders to discuss Vivendi directors request. *Total Telecom*, 26 November. <http://www.totaltele.com>
- Lennighan, M. (2015d) Telecom Italia shareholders advised to vote against Vivendi directors. *Total Telecom*, 1 December. <http://www.totaltele.com>
- Lennighan, M. (2016) Telecom Italia CEO's job under threat...from Vivendi. *Total Telecom*, 4 March. <http://www.totaltele.com>
- LEX (2016) Telecom Italia / Vivendi: bad connection. *Financial Times*, 21 March. <https://www.ft.com>
- Newsbeezer (2018), One year from ho. mobile: The second brand of Vodafone Italia makes its first candle. 22 June. <https://newsbeezer.com>
- Reuters (2015) Iliad founder Xavier Niel buys Telecom Italia stake, *Reuters*, 29 October. <https://www.reuters.com>
- Reuters (2016) Telecom Italia not worried about Iliad's entry into Italy – CEO. *Reuters*, 14 September. <https://www.reuters.com>
- Rosemain, M. and Barzic, G. (2017) Iliad's profit boost gives it firepower for Italy. *Reuters*, 7 March. <https://www.reuters.com>
- Sanderson, R. (2016) Telecom Italia's Patuano to quit after Bolloré tussle. *Financial Times*, 20 March. <http://www.ft.com>
- Telecompaper (2017) TIM's low-cost Kena Mobile brand goes live. 30 March. <https://www.telecompaper.com>
- Telecompaper (2020a) Wind Tre launches early EUR 5 offer under new Very Mobile brand. 25 February. <https://www.telecompaper.com>

Telecompaper (2020b) WindTre to activate 5G in 10 Italian cities this year, 70 by 2021 – CEO. 22 June. <https://www.telecompaper.com>

Telecompaper (2020c) Iliad Italia launches 5G in 27 cities with sub-EUR 10 offer. 22 December. <https://www.telecompaper.com>

TeleGeography (2013a), Sawiris yearns to feel Wind beneath his wings once more, May 2013. <https://www.telegeography.com>

TeleGeography (2013b), TI calls time on Hutch merger discussions, July 2013. <https://www.telegeography.com>

TeleGeography (2014), VimpelCom and Hutchison in Italian stalemate, October 2014. <https://www.telegeography.com>.

TeleGeography (2015a) Wind of change: Italian merger talks resume. 18 February. <https://www.telegeography.com>

TeleGeography (2015b) Italian government will not block merger of Wind and 3. 24 September. <https://www.telegeography.com>

TeleGeography (2015c) Telecom Italia open to Brazilian merger, but only if it is in the driving seat. 5 November. <https://www.telegeography.com>

TeleGeography (2016a), Fastweb, Iliad and Digicel interested in Italian assets, June 2016. <https://www.telegeography.com>

TeleGeography (2016b), EU probe into Wind-3 Italia deal extended to September, June 2016. <https://www.telegeography.com>

TeleGeography (2016c), 3 and Wind to offer new concessions for Italian merger, July 2016. <https://www.telegeography.com>

TeleGeography (2016d), Iliad agrees to acquire Italian assets, July 2016. <https://www.telegeography.com>

TeleGeography (2016e), Fastweb calls on EC to investigate Iliad offer, July 2016. <https://www.telegeography.com>

TeleGeography (2016f), Italy: Niel exits TI, Fastweb to exit Metroweb, Enel partners with GO Internet, July 2016. <https://www.telegeography.com>

TeleGeography (2016g) MVNO Monday: a guide to the week's virtual operator developments (Kenya), 14 November. <https://www.telegeography.com>

TeleGeography (2017a) Fastweb moves to overturn Wind-3 merger decision. 2 February. <https://www.telegeography.com>

TeleGeography (2017b) Iliad to launch in Italy by early 2018, targets 10% of mobile market. 9 March 2017. <https://www.telegeography.com>

TeleGeography (2017c) Iliad now looking at Q2 2018 for Italy launch. 22 December. <https://www.telegeography.com>

TeleGeography (2018a) Italy announces 5G tender for September. 24 May. <https://www.telegeography.com>

TeleGeography (2018b) Iliad Italy signs up 300,000 users in its first month. 29 June. <https://www.telegeography.com>

- TeleGeography (2018c) Iliad Italy attracts one million users in 50 days. 19 July. <https://www.telegeography.com>
- TeleGeography (2018d) Iliad hits two million users in Italy. 6 September. <https://www.telegeography.com>
- TeleGeography (2018e) Italy's 5G auction raises EUR2.48bn after initial bids. 11 September. <https://www.telegeography.com>
- TeleGeography (2018f) Italian 5G auction ends with bids of EUR6.55bn. 3 October. <https://www.telegeography.com>
- TeleGeography (2018g) TIM and Vodafone consider 5G network sharing; both firms against 3.5GHz extensions. 13 November. <https://www.telegeography.com>
- TeleGeography (2019a) TIM and Vodafone to share 5G networks in Italy. 22 February. <https://www.telegeography.com>
- TeleGeography (2019b) Vodafone set to launch Italy's first 5G network. 6 June. <https://www.telegeography.com>
- TeleGeography (2019c) TIM launches limited 5G service. 25 June. <https://www.telegeography.com>
- TeleGeography (2020a) Iliad asks court to halt Wind Tre-Fastweb 5G network sharing. 22 January. <https://www.telegeography.com>
- TeleGeography (2020b) Iliad raises concerns over second 5G network sharing deal. 31 January. <https://www.telegeography.com>
- TeleGeography (2020c) Fastweb to launch mobile 5G later this month. 16 December. <https://www.telegeography.com>
- TeleGeography (2021a) Iliad loses fight to block WINDTRE-Fastweb 5G network deal. 11 January. <https://www.telegeography.com>
- TeleGeography (2022a) Vodafone and Iliad mull Italian merger. 24 January. <https://www.telegeography.com>
- TeleGeography (2022b) Iliad chasing Vodafone in Italy. 8 February. <https://www.telegeography.com>
- Thomas, D. (2013) Wind of change blows for VimpelCom's Italian unit. Financial Times, 22 December. <http://www.ft.com>
- Thomas, D. (2015) Telecom Italia open to a deal with Oi for Brazilian business. Financial Times, 12 November. <http://www.ft.com>
- Thomas, D., Thomson, A. and Sanderson, R. (2015) Telecom Italia's fate lies in the hands of French tycoons. Financial Times, 4 November. <http://www.ft.com>
- Thomson, A. (2015a) Xavier Niel buys options on potential 11% Telecom Italia stake. Financial Times, 29 October. <http://www.ft.com>
- Thomson, (2015b) Xavier Niel increases options in Telecom Italia. Financial Times, 30 October. <http://www.ft.com>
- Thomson Reuters Practical Law (2017) Fastweb appeals Commission decision to conditionally approve Hutchison/VimpelCom joint venture. *Practical Law EU Competition weekly email to 10 March*. 10 March. <https://uk.practicallaw.thomsonreuters.com>

- Tushman, M. L., & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, 31, 439–465.
- Vialle, P. (1998) *Stratégies des opérateurs de télécoms*. Paris: Editions Hermès
- Vialle, P. Whalley, J. and Parisot, X (2018) How disruptive are disruptive operators? *22nd Biennial Conference of the International Telecommunications Society*, 24th-27th June, Seoul, South Korea
- Vialle, P., Whalley, J. and Curwen, P. and Parisot, X (2020) Disruption in mobile industries: Free Mobile and Reliance Jio. *ISPIM Connects Bangkok 2020: Partnering for an Innovative Community*, ISPIM, Mar 2020, Bangkok, Thailand
- Weeks, M. R. (2015) Is Disruption Theory Wearing New Clothes or Just Naked? Analyzing Recent Critiques of Disruptive Innovation Theory. *Innovation: Management, Policy & Practice*, 7(4), 417–428
- Whalley, J. and Curwen, P. (2003) Licence acquisition strategy in the European mobile communications industry. *info*, 5 (6), 45-57
- Whalley, J. and Curwen, P. (2005) An investigation into internationalisation among mobile telecommunication companies. *European Business Review*, 7 (4), 21-29
- Wood, N. (2016) Telecom Italia CEO resignation confirmed. *Total Telecom*, 21 March. <http://www.totaltele.com>
- Yin, R.K. (2014) *Case study research: Design and methods*. SAGE Publications: Thousand Oaks, California
- Za, V. and Flak, A. (2015) Niel has bet 225 mln euros on Telecom Italia, may want bigger say. *Reuters*, 9 December. <https://www.reuters.com>