Journal of Evolutionary Studies in Business JESB

Volume 8, Number 2, 213-247, July-December 2023 https://doi.org/ 10.1344/ 10.1344/jesb2023.8.2.41837

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China-Europe cooperation in the telecommunications: the case of China Unicom/Telefónica, 2002-2016

Abstract

This research seeks to explore the driving forces behind the diverse pathways of telecommunications and, in particular, the rationale for international alliances in the context of globalisation and the extension of the value chain induced by technological change. It attempts to answer two interrelated questions: from China's side, why Telefónica and from this operator's side, why China?

China was looking for a reliable technology partner for its weak market segments and a bridge to Latin America. Telefónica ambitioned to expand its mobile customer base in a country with high growth potential (NYT) while reducing through economies of scale equipment supply costs in an oligopolistic market. The research adopts a case study methodology and focuses on the service operators China Unicom and Telefónica de España in the years after the dotcom crash and before the arrival of the Covid-19 pandemic. The investigation is based on sources from the companies involved and relevant documents from specialised institutions. The study finds that the need for cooperation in the knowledge and capital-intensive services and the coincidence in strategies led to the frame of international alliances of companies.

Keywords: China Unicom, Telefónica, telecommunications, strategic alliances

Cooperación China-Europa en telecomunicaciones: el caso de China Unicom/Telefónica, 2002-2016

Resumen

Esta investigación busca explorar las fuerzas impulsoras que están detrás de las diversas vías de las telecomunicaciones y, en particular, la justificación de las alianzas internacionales en el contexto de la globalización y la extensión de la cadena de valor inducida por el cambio tecnológico. Intenta responder a dos preguntas interrelacionadas: del lado de China, ¿por qué Telefónica? Y del lado de este operador, ¿por qué China?

China buscaba un socio tecnológico de confianza para sus débiles segmentos de mercado y un puente hacia América Latina. Telefónica aspiraba a expandir su base de clientes móviles en un país con alto potencial de crecimiento (NYT) mientras reducía a través de economías de escala los costos de suministro de equipos en un mercado oligopólico. La investigación adopta una metodología de estudio de casos y se centra en los operadores de servicios China Unicom y Telefónica de España en los años posteriores al colapso de las puntocom y antes de la llegada de la pandemia del Covid-19. La investigación se basa en fuentes de las empresas involucradas y documentos relevantes de instituciones especializadas. El estudio revela que la necesidad de cooperación en los servicios intensivos en conocimiento y capital y la coincidencia en las estrategias llevaron al marco de alianzas internacionales de empresas.

Palabras clave: China Unicom, Telefónica, telecomunicaciones, alianzas estratégicas

Cooperació Xina-Europa en les telecomunicacions: el cas de China Unicom/Telefónica, 2002-2016

Resum

Aquesta recerca cerca explorar les forces impulsores que hi ha darrere de les diverses vies de les telecomunicacions i, en particular, la justificació de les aliances internacionals en el context de la globalització i l'extensió de la cadena de valor induïda pel canvi tecnològic. Intenta respondre dues preguntes interrelacionades: del costat de la Xina, per què Telefónica? I pel costat d'aquest operador, per què la Xina?

La Xina buscava un soci tecnològic de confiança per als seus febles segments de mercat i un pont cap a Amèrica Llatina. Telefónica aspirava a expandir la base de clients mòbils en un país amb un alt potencial de creixement (NYT) mentre reduïa a través d'economies d'escala els costos de subministrament d'equips en un mercat oligopòlic. La investigació adopta una metodologia d'estudi de casos i se centra en els operadors de serveis China Unicom i Telefónica de España els anys posteriors al col·lapse de les puntcom i abans de l'arribada de la pandèmia del Covid-19. La investigació es basa en fonts de les empreses involucrades i documents rellevants de les institucions especialitzades. L'estudi revela que la necessitat de cooperació en els serveis intensius en coneixement i capital i la coincidència en les estratègies van portar al marc d‟aliances internacionals d‟empreses.

Paraules clau: China Unicom, Telefónica, telecomunicacions, aliances estratègiques

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Received 27 January 2023 - Accepted 24 April 2023

Online ISSN: 2385-7137
http://revistes.ub.edu/index.php/JESB

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Journal of Evolutionary Studies in Business JESB
Volume 8, Number 2, 213-247, July-December 2023 https://doi.org/ 10.1344/ 10.1344/jesb2023.8.2.41837

1. Introduction

Trade has always been the backbone of China-European Union economic relations. Their upsurge can be traced to various factors, starting with China's accession to the World Trade Organisation (WTO) in 2001, through the dramatic expansion of bilateral economic cooperation driven by a myriad of institutional fora, to the identification of common areas of global cooperation (Cowhey and Klimenko 2001). The European Union and China were major trading partners and sources of imports. In 2004, the EU-25 overtook Japan and the United Sates to become China's largest trading partner. In recent years, the value of trade between China and the EU-28 has been around $600 billion annually (Mission of China to EU 2019, 6-7). The economic relationship went beyond trade and gradually expanded into new areas, such as investment, science and technology, and economic cooperation (Tu and Li 2020, 1-4).

With the ‘open door’ policy of Deng Xiao Ping in 1978, which promoted foreign investment, China became the country offering the most attractive market prospects for most information and communication technologies (ICT) products and services, pillar, fundamental for national security, driving force for innovation, core industry underlying informatisation and new economic growth and catch up patterns. It made ICTs a key focus of scientific and technological West-China cooperation. This country thus took in the so-called third wave of internationalisation of companies from mature Western markets, which followed the first (Europe-North America) and the second (Japan and South Korea).

A selective approach prevailed as preference was given to foreign companies with niche technologies neglected by local manufacturers or those likely to invest in western China, where communication services were poor. In addition, institutional factors came into play: foreign companies better connected to the many different governmental institutions were expected to

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perform better in the Chinese market (Gereffi et al. 2022, 4; Yu and Li-Hua 2009, 4-6 and 122; Shaolong 2016, 89).

Scholars have focused heavily on industry and have somewhat neglected services, which are different from the manufactures (Buckley, Pass and Prescott 1992, 39-56; Zedtwitz 2007) and constitute the very core of economic globalisation (Primo 1996, 34-37). Research is lacking on the internationalisation of companies from developing countries (Jiang 2005). For its part, literature has traditionally focused on cooperation between nationals and foreigners in China but mainly likewise in the manufacturing sector (Mu and Lee 2005, 759-783). On the other hand, it is questionable whether Foreign Direct Investment (FDI), the conventional mode of entry for a market of this size, is the right way to enter the services sector (Clegg, Kamall and Leung 1996, 111-137). That is why telecommunications services present a new scenario for the scholarship.

This research aims to contribute to the theoretical debates on China's new development strategies in general within the changing global context (Gereffi et al. 2022). More specifically it aims to contribute to the controversy on the modes of entry and diversity of pathways in the evolution of telecommunications industries and services - one of the strategic industries of the Chinese government- in the historical context of the Chinese public sector, which is characterised by an extreme diversity of organisations and administrative units at the provincial and municipal levels involved in the same industry (Loo 2004, 699-700). By another hand, countries deferred in the priorities given to implementation of reform (maximising the revenues from the sale of state-owned enterprises, long-run economic benefits to consumers and society at large, creating an institutional environment, and establishing a legal and regulatory framework) (Noll 1999).

Online ISSN: 2385-7137
http://revistes.ub.edu/index.php/JESB

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The research focuses on the service operators China Unicom and Telefónica de España in the years after the dotcom bubble collapse and before the arrival of the Covid-19 pandemic. It consists of three main sections, which include an overview of the sector and the analysis of the first entry of Telefónica in China and its arrangements with its counterparts. The research is grounded on sources from the companies involved and rich documents from specialised institutions. It has suffered from the limitations of the resources used particularly from the Chinese sources[1].

2. The worldwide telecommunications: nature and evolution

The nature of a service sector grants telecommunications two distinctive characteristics. The first involves high sunk costs in physical networks and high expenditure on research and development (R&D). Knowledge capital, i.e. high-tech products and rapid innovations, reputation, management, patents, and brands, are crucial to determining a firm's competitive advantage. Secondly, the telecommunications have significant network externalities, where the benefit that consumers secure depends on the number of other users. Therefore, economies of scale are important and consequently, industry concentration and overseas expansion are required (Zhiling 2002, 33-34).

Specific circumstances are at work in this scene to bring telecommunications the precise profile of a given period. In the late 20th and early 21st centuries, the global telecommunications sector went through two distinct phases. In the bursting of the bubble and subsequent recession — the major telecom implosion[2] — out of the $7 trillion drop in the stock market since its peak, about

[1] SASAC, for example, has its web but the first information on telecommunications goes back to 2019-10-31, while the NDRC does not provide any information.

[2] Shifting from reform to collapse, half a million people lost their jobs, the wireless communications index dropped 89 per cent, declines in value worthy of comparison to the great crash of 1929: Starr 2002, p. 21.

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$2 trillion disappeared in the capitalization of telecom companies; twenty-three telecommunications companies failed in a wave that culminated in the collapse of WorldCom, the largest bankruptcy in United States history. A recovery in 2003 followed this phase (Chen and Shi 2008, 127; Starr 2002, 21).

Within this period, in the 1990s, a gigantic wave of mergers and acquisitions dramatically restructured telecommunications around the world. In Europe and the United States, telecommunications companies consolidated into a shrinking group of providers, rapidly oligopolising the sector. The reasons for this process include technology, institutions and the profound movements of the world economy, in other words, the convergence of digital technologies, deregulation, globalisation and the search for economies of scale and scope (Warf 2003, 321).

Unlike in the US and Europe, there had not been active cross-border mergers and acquisitions (M&As) in Asia. Nevertheless, more and more penetration into the Asian market by United States and European telecommunication enterprises was expected in the immediate future (Park et al. 2002, 58).

The wave of international M&As became more pronounced in the twenty-first century (Gershon 2020). In the telecommunications sector, the traditional paradigm of fixed telephony, monomedia and electromechanical devices shifted to a new one, defined in four terms: mobile and global, private, competitive and with a wide value chain. By 2010 a dozen operators dominated the international telecommunications market. China Mobile ranked first and was followed by AT&T and Vodafone ahead of the large companies of the core European powers (Figure 1).

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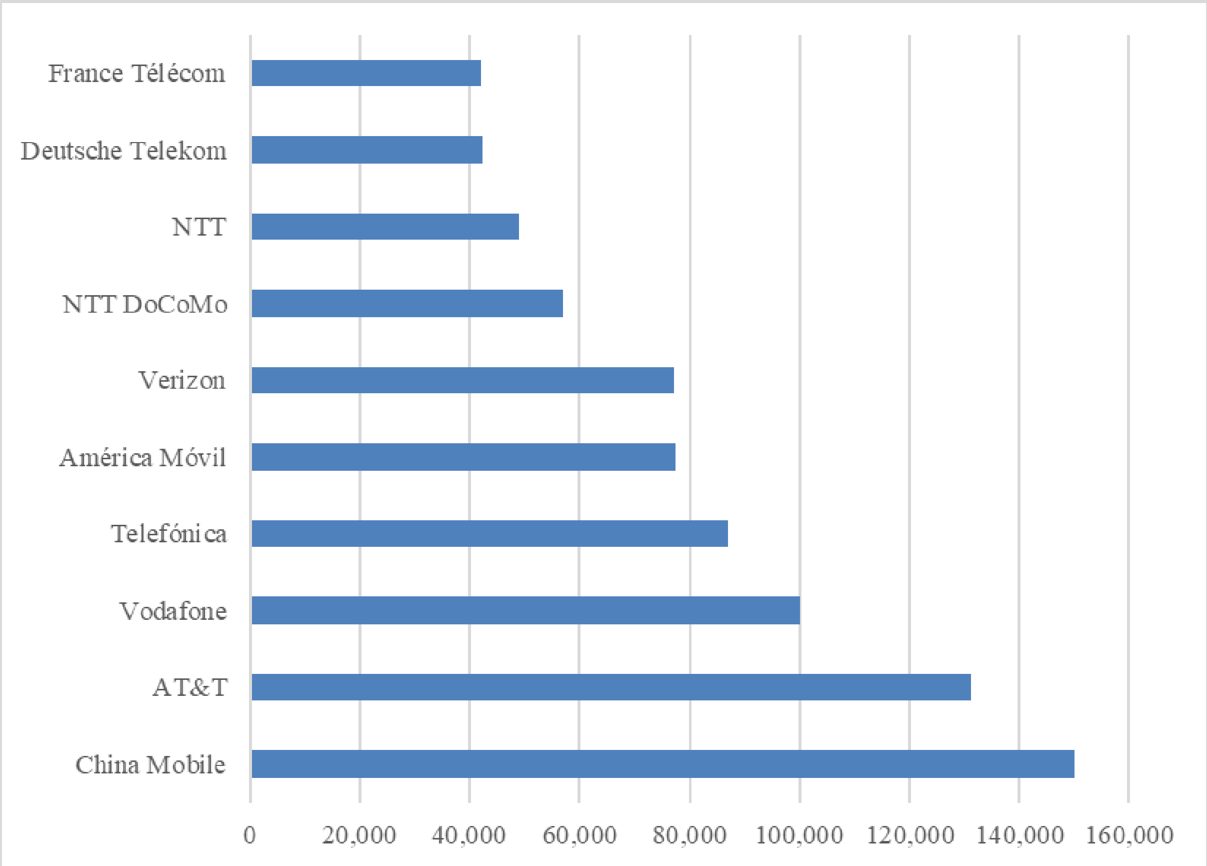
FIGURE 1. Ranking of telecommunications companies by market capitalisation, 2010 (€)



Source: Based on Telefónica (2010, 31).

In China and Hong Kong, telecommunications accounted for 2.2% of a total number of over 9,737 transactions between 2000-2016, far from the industrial, materials and financial sectors representing 14.2%, 13.8% and 13.8% of all deals, respectively (Institute for Mergers, Acquisitions and Alliances).

China Telecom Hong Kong Ltd in 2000, China Unicom Ltd in 2008 and China Telecom Corp Ltd in 2012 ranked four, five and eighth in the largest M&A deals in China and Hong Kong between 2000-2015 (Table 1).

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TABLE 1. Largest M&A Deals in China and Hong Kong

Rank	Date	Acquiror	Nation	Target	Nation	Value (in bil. USD)
1	2014	CITIC Pacific Ltd	Hong Kong	CITIC Ltd	China	42.2
2	2000	Pacific Century CyberWorks Ltd	Hong Kong	Cable & Wireless HKT	Hong Kong	37.4
3	2015	Spin-off	Hong Kong	Cheung Kong (Hldg) Ltd-Ppty	Hong Kong	36.9
4	2000	China Telecom Hong Kong Ltd	Hong Kong	Beijing Mobile,6 others	China	34.2
5	2008	China Unicom Ltd	Hong Kong	China Netcom Grp(HK)Corp Ltd	Hong Kong	25.4
6	2015	Cheung Kong(Holdings)Ltd	Hong Kong	Hutchison Whampoa Ltd	Hong Kong	23.6
7	2015	China Tower Corp Ltd	China	China-Telecommun tower asts	China	18.3
8	2012	China Telecom Corp Ltd	China	China Telecom Corp-3G Assets	China	18.0
9	2014	Investor Group	China	Sinopec Sales Co Ltd	China	17.5

Source: Elaborated from Institute for Mergers, Acquisitions and Alliances.

A means to enhance strategic resources are strategic alliances or voluntary cooperative relationships between two or more independent organizations (He et al. 2020, 589-617; Serrat 2009, 1-19). In the closing two decades of the twentieth century, several cross-border strategic alliances appeared in the telecommunications industry to lay the foundations for a global information highway, three of them between European partners and one between Asian partners — five telephone companies — and the US firm AT&T (McKlintock 2015, 228). Broadening the field, the telecommunications and information technology (ICT) sector in the twenty-first century is rapidly and significantly changing the business landscape with fast-changing activities, expectations and new modes of collaboration (He et al. 2020, 589-617).

In Spain, revenues in the telecommunications sector between 2001 and 2021 followed two distinct phases: a decrease until 2013 and an increase in the following years. The year-on-year

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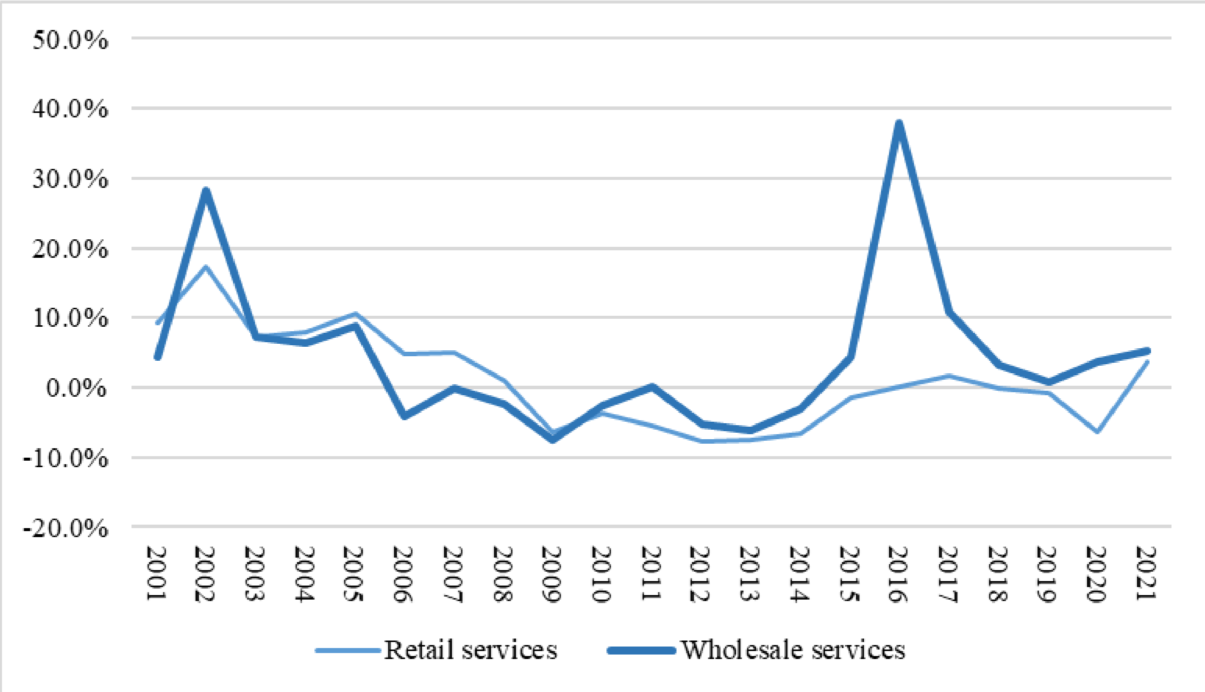
rate of change had two peaks, the first one in 2002, exceeding the chronological limit of the dot.com bubble, and in 2016 (Figure 2).

FIGURE 2. Revenues in the telecommunications sector between 2001 and 2021



Source: Elaboration from CNMT, Informe(s) anual(es).

Many companies expanded outside their countries of origin to psychologically close markets — Uppsala internationalization model —, i.e. of similar cultures, as was the case with Telefónica. Once the crisis of the technology bubble had been quelled, Telefónica was able to take advantage of the favourable economic context of ICTs, especially telecommunications, to undertake a transformation process by which it became a global operator in barely four years. Telefónica continued the strategy of internationalisation that started substantially two decades earlier in Latin America in the era of the predominant voice telephony but now under the convergence of ICT and in the transition to the predominance of mobile telephony, the operator's growth engine, and broadband businesses. In the new phase predominated a selective strategy, which took the form of entry into open markets in Eastern Europe and China with high

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growth potential. At the same time, markets that had been explored, including Turkey, were discarded (*RedesTelecom*, 22 October 2007).

Telefónica headed the list of the world's largest investors in the sector with $70,856 million between 1990-2006, far behind the group comprising Telecom Italia, Carso Group, America Movil, Suez and France Telecom, with figures of between USD 27 and USD 35 billion. AES Corporation, Deutsche Telekom, Portugal Telecom and Singapore Telecom are below this level (World Bank, Infrastructure Projects Database, on-line).

It has been said that Telefónica's access to Europe was swift and decisive. To a certain extent, this is borne out by the figures, since in just two years, between 2004 and 2006, the continent went from contributing just over 4% of the company's revenues to 26%. A closer reading points to a slow start because Telefónica had already been in different segments of the European market for a number of years. What happened was a major leap, not without previous failures. To explore new distant markets was a challenge.

3. Telefónica, a "taciturn lone ranger" in China

For many years China Telecom was the sole provider of telecommunications services in China. Competition was introduced in the country from 1994 and the state monopoly was replaced by an oligopoly of new state-owned enterprises and clearly broken in 2000 (Loo 2004, 697-714). It occurred a century after the new Imperial Telephone Bureau opened the government-run telephone service in 1899 and some years after the gradual reform policy was initiated (Chen 2007). China Netcom was created by combining with Jitong Communications Company Ltd and the companies in the ten Northern provinces; between 2002 and 2004 it underwent a remarkable process of concentration (Chen and Shi 2008, 130). China Telecom, former monopoly and twice the size of its rival (*Expansión*, 15 November 2005), predominated in the

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more populous and wealthier south, which included states such as Shanghai and Guandong, and had entered as the second operator the areas controlled by Netcom[3].

Further to the core question, three forces drove the peculiar pathway and strategy of Chinese telecommunications transformation and growth from monopoly to full competition in globalization: government concerns, foreign pressure and domestic demand (Loo 2004, 697-714; Harwit 1998, 175-193; Gao and Lyytinen 2013, 229)[4]. Cooperation was also of great importance.

The Chinese telecommunications reforms resulted in a fragmented structure (Mu and Lee 2005, 759-783) comprising six main state operators. Four of them — China Telecom, China Unicom, China Netcom and China Railcom — provided fixed-line local, long-distance and international telephony services, while China Unicom and China Mobile operated the mobile services. IP telephony service was provided by the four cited together with China Mobile, and the satellite service by China Satellite. The Chinese government's entry policy restricted the competition to the network-based one (Hanna and Knight 2011, 96).

In this context, what interest could China have in Spain? Spain represented economic, business and geopolitical assets, namely, vigorous economic growth, business leadership in some sectors, EU membership, close ties with Latin America, an area of great interest to the Asian giant, and non-hostility towards China (Valenzuela 2007, 281).

[3] Milestones in liberalisation of the telecommunications in China (1994-2001): Jan. 1994: creation of Jitong; Jul. 1994: creation of China Unicom; Feb. 1999: break-up of China Telecom (China Telecom-f -Dec.1999-, China Mobile (-Jan. 2000-, China Satellite -Jun. 2000-; Apr. 1999: Creation of China Netcom; Mar. 1999 China Paging →China Unicom; Dec. 2000 Creation of China Railcom; Dec. 2001 Splitting of China Telecom-f (New China Netcom & China Telecom-s China Netcom & Jitong →New China Netcom China Railcom →China Unicom). See Zhiling (2002, 30) and Securities and Exchange Commission (2006, 16-17).

[4] For the structure of telecommunication in the domestic market in early 21st century, see Mu and Lee (2005, 759-783) together with He, Lim and Wong (2006, 1147–1165).

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Telefónica significantly claimed its multinational dimension and presented clear objectives of integration and cultural change, based on the Group's scale, positioning and leadership at home and in Latin America, as well as on recent operations. The Spanish operator pursued making results-oriented management a priority objective. To the acquisition of Cesky Telecom, it added in its analysis the successful integration of the mobile operations acquired from BellSouth, the strategic investment of 5% in China Netcom, which deserves a separated analysis, and the planned acquisition of the British O2, with a significant presence in the United Kingdom, Germany and Ireland[5].

Telefónica considered China, where barely a quarter of the population used a mobile phone, as a very complex and appealing market, although the timing and the selection of possible acquisition targets would take time to assess and would have to be right.

But there had to be a suitable climate in politics and business. An income tax treaty into force since 1990 limited the tax rate on dividends to 10% (Lang and Owens 2018). The cornerstone of the relations was the first diplomatic relations in 1973 — five years before the 'open door' policy — and the Embassy of Spain opened an Economic and Commercial Office six years later (Dezcallar 2022, 443-453). Since then, the economic relations rested on a sharp asymmetry, which prompted the Spanish government to encourage companies to enter the Chinese market. Trade with China represented 73% of the total Spanish trade deficit but just over 2% of Spain's exports and only 4.7% of China's trade surplus in 2017 (Ortega 2019).

[5] *Financial Times*, 15 November 2005; Telefónica, Significant event, 21 December 2005; Chen and Shi (2008, 128). By combining the operations of Movicom – acquired for a value of USD 988 million- and Unifon, Telefónica Móviles became the leading mobile operator in Argentina: *Business Wire*, 11 January 2005. A preliminary version of this section in Calvo (2021, 11-28).

Online ISSN: 2385-7137
http://revistes.ub.edu/index.php/JESB

Volume 8, Number 2, 213-247, July-December 2023 https://doi.org/ 10.1344/ 10.1344/jesb2023.8.2.41837

Commercial representation offices shaped together with service companies the main business presence of Spain in China, which amounted to more than half a thousand companies some years later. According to the Embassy of Spain in Beijing, in 2010, only around 40% were engaged in directly productive activities, mainly located in the Beijing, Shanghai and Guangzhou areas.

From the human capital perspective, apart from the ambassador to Spain, Zhu Bangzao, and the economic and commercial advisor, Ji Xianzheng, the two decision-makers who could lead the group of key executives for doing business with China were Ms. Hong Chen Jin and Liu Gang, general manager of the ICBC bank in Spain. Ms. Hong Chen Jin combined her activity as an executive with the presidency of the professional association China Club Spain (*Expansión*, 2 and 12 February 2012).

A first chance arose in 2004 from the Chinese side. A high-ranking delegation led by the Vice Premier of the State Council Zeng Peiyan met managers of Spanish companies (Europa Press, 29 November 2004). The Chinese representative, also responsible of major infrastructure and environmental projects, visited specifically the Telefónica's headquarters (Telefónica 2004, 149). He stressed that China supported the establishment of strategic partnership with foreign companies to jointly explore the international market (*El Economista*, 25 August 2006). Furthermore, the Chinese government choose Telefónica to increase its telecommunications cooperation with Spain.

Telefónica began to weigh opportunities for investment in China, without ruling out the possibility of acquiring businesses provided that it ensured control of the company, a procedure followed in Latin America (*TeleGeography*, 27 June 2005). The Spanish operator warned until

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http://revistes.ub.edu/index.php/JESB

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late in the day that any acquisition of assets in China was conditional on the operator obtaining a mobile licence and expanding its fixed-line footprint (*Financial Times*, 15 November 2005).

Far from improvisation, the transaction required some time to mature, with moments of limited success. In 2005, the year when Spain and China initialled a strategic partnership agreement as well as several other on markets and companies (Valenzuela 2007, 281), Telefónica established a springboard for its expansion in China. It created an office in Beijing with the aim of sounding out the possibilities in that country, the primary move before the direct investment that is very dear to some of the great theories of internationalisation, such as the Uppsala original model built on the manufacturing sector[6].

Telefónica's decision came against the backdrop of a boost in relations between the two countries as a result of the rapid adaptation of Spanish companies to China's evolving needs[7]. Furthermore, the decision to invest in China obeyed to the huge potential of that market in broadband and mobile telephony, although the supposed partner did not yet have a mobile licence and China had not set deadlines for third generation (3G) licensing (*Financial Times*, 25 July 2005).

Telefónica set three major courses of action for its delegation. As a basis, it sought to establish the appropriate contacts at governmental and corporate level, both with the diverse Chinese authorities and with the Spanish, European and Latin American leaders. Relations were

[6] The school advocates now for a model of the evolution of the multinational business enterprise in general, from early steps abroad to being a global firm, not only strictly characteristics of the internationalisation process: see Vahlne and Johanson (2017, 1087-1102). In comparative terms, Indra, present in China since 1997, since 2002 it had a subsidiary in Beijing from where it managed its expansion in the region as well as a network of offices to support the development of the different projects: *Indra News*, 27 June 2007. Deutsche Telekom opened a higher-ranking centre: its sales and marketing office for Deutsche Telekom Asia Pacific was Deutsche Telekom (China): *The Foreign Companies in China Yearbook*, 2007, 93.

[7] Spanish exports to China have been on the rise and in 2019 the number of Spanish exporting companies multiplied by 8.48 from 1,656 in 2000: Dezcallar 2022, pp. 444-445.

Online ISSN: 2385-7137
http://revistes.ub.edu/index.php/JESB

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established with organizations and bodies of a different hierarchical order, within an intricate network of policy makers and regulatory agencies which played an important role in the reforms. They included the MII (Ministry of Information Industry), two commissions linked to the State Council — SASAC (State-owned Assets Supervision and Administration Commission, the equivalent of the Spanish SEPI) and the NDRC (National Development and Reform Commission) — (Laperrouza 2014, 51-53). The SASAC manages the assets of companies controlled directly by the central government while the NDRC is the policy-making body under the supervision of the state council. Other Chinese government agents existed with diverse kind of competences in the telecommunications sector, indicating an institutional leadership (Hanna and Knight 2011, 90-91). In addition, Telefónica became an active member of the Chamber of Commerce of Spain and the European Union, as an actor for promoting policies as well as networking and lobbying activities. As a second objective, Telefónica sought to increase the participation of Chinese industrialists in its portfolio, both to reduce costs and to gain first-hand knowledge of trends in technological innovation in the region (Martín 2008, 169-172). As Southeast Asia increased in economic significance, Telefónica consolidated its presence with offices in Shanghai, Beijing, Hong Kong and Singapore, the already mentioned friendly business area with more concentration of Spanish enterprises. Many of its customers had invested in the Asia-Pacific area, forcing the operator to expand and develop customer relationships in the area (*CincoDías*, 18 November 2013)[8].

The Beijing office was set up in units and functions so that the pre-sales manager, for example, handled customer requests and helped provide solutions and the business unit and sales support prepared official responses to international tenders and business cases for customer proposals.

[8] The Singapore Telefonica’s office was staffed by sales people, consultants, engineers, solution architects and service managers.

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The office, strengthened in the skills of the staff, was responsible, among other things, for commercial preparation, marketing campaigns and monitoring the company's financial situation. It was, in particular, crucial as a stepping stone for Telefónica's entry into China, no doubt thanks to the coincidence of interests but also to interconnection between the companies' cultures — China Netcom's and Telefónica's — through the contribution of skills from the host country. This issue is embodied by Ms. Hong Chen Jin, who joined influence on the Chinese authorities, adequate position in the relationship networks (*guanxi* in Mandarin) and experience in the sector. She was promoted to deputy director and director position of Telefónica in 1999, became responsible in 2004 to expand Telefónica in Asia and was appointed deputy general manager of the Asia representative office of Telefónica Internacional in Beijing since 2005[9].

The very modest entry into China had brought foreign telecommunications multinationals little in the way of tangible synergies and inter-company value creation, as was the case with Britain's Vodafone with 3.3% interest in China Mobile, the biggest wireless operator. Conversely, Telefónica considered uncertainty to be perennial and exchange rate behaviour unpredictable (e.g. unforeseen renminbi appreciation). Telefónica faced risks arising from a number of technological and institutional factors in general: markets subject to intense technological renewal that required constant technological innovation; subjection to the terms and conditions imposed by the governments of each country when granting licences to provide services; user

[9] Mauricio Sartorius, Telefónica's chief representative in Beijing, held a degree in Economics from the Universidad Complutense of Madrid and a MBA from New York University; he said Telefónica's investment in Netcom was for the long term (*Financial Times*, 25 July 2005). Ms. Hong Chen Jin, alias Margaret Chen, successor of Sartorius, had worked for seven years in the IT industry in the USA — among others, as a vice president of R&D in ACS, a software development company — before joining Telefónica and staying in the Group for more than ten years. She had a degree in computer science and a MBA degree from Shanghai Jiao Tong University, and a Master's Degree from the USA in industrial engineering major in investment analysis and corporate management skills. Ms. Hong Chen Jin was considered one of the most influential women in the telecommunications field by the Chinese government in 2007: China Netcom Group Corporation (Hong Kong) Limited, Announcement, 19 December 2006.

Online ISSN: 2385-7137
http://revistes.ub.edu/index.php/JESB

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animosity towards mobile telephony due to the potential health problems caused by radio electric emissions[10].

There were also the specific risks of the Telefónica Group, from country risk (investments in Latin America) and continuing with those associated with the management of exchange rate or interest rate risk; relations with partners in joint ventures not controlled by Telefónica; the greater solvency risk arising from acquisitions and, therefore, greater financial vulnerability and less strategic flexibility; acquisitions and business integrations and, finally, litigation and other legal proceedings pending before courts and arbitration bodies in the various countries.

If we look at country risks, we find up to seven elements of a political, regulatory, monetary, fiscal and economic policy nature. In detail, they related to possible abrupt changes in policies and/or regulation; devaluation of local currencies or imposition of restrictions on the exchange rate regime or on capital movements; negative equity situation in Group subsidiaries and consequent recapitalisation or start of the dissolution process due to the effects of inflation and/or possible devaluation of local currencies; possible public expropriation of assets; possible imposition of excessive taxes or duties; possible political changes that could affect the economic or business conditions of the market in which it operates; the possibility of economic crises, or situations of political instability or public unrest, which could adversely affect the Group's operations in these countries[11].

In addition, and from a general perspective, country risk also had an impact on the Group's market value in these countries, revenues, dividends and management payments for these

[10] Telefónica, S.A., *Document on Registration of Bonds and Derivatives*, Annex IV of the European Commission Regulation (EC), 29 April 2004, pp. 6-10. We have thoroughly exploited this exceptional document.

[11] Casson and da Silva, 2013, pp. 375-404; political risk and MNEs' entry into new markets from an international business perspective (Henisz and Zelner 2001, 123-148; Henisz 2000, 334-364).

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companies. An adverse economic situation in these regions could affect demand, consumption and the exchange rate in these countries[12].

Telefónica leveraged strategic alliances as a tool to consolidate its leadership position. Through them it managed to reach 650 million customers worldwide, equivalent to roughly a tenth of the world's population (Telefónica 2009, 40-41). During 2009, Telefónica SA created a specific area with the primary mission of optimising the management of these alliances under a common perspective and leadership. The strategic alliances and industrial shareholdings department was able to implement specific actions in terms of both shareholder control and industrial management with Telefónica's partners: Telecom Italia and China Unicom. This same operational model of maximising synergies was extended to other markets outside the Telefónica Group. The ultimate goal was to leverage the scale with third party operators under a strictly commercial relationship model. Towards the end of 1997, Telefónica joined a group of Italian institutions (Generali, Mediobanca, Intesa Sanpaolo and Benetton) to form the Telco consortium, entrusted with acquiring a significant stake in Telecom Italia through the purchase of 100% of Olimpia, the operator's main shareholder (Fernández Valbuena and Mielgo 2008, 85-86; *El Economista*, 30 April 2007). The investment positioned the Group as the largest shareholder in the consortium and laid the groundwork for the development of a significant programme of operational synergies. Even without being the focus of our study, it ratifies the liability to alliances. In the following we focus on the alliance between China Unicom and Telefónica.

[12] Telefónica, S.A., *Document on Registration…* 2004, 6-10.

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4. To cooperate to expand: China Unicom and Telefónica

In the crucial year of 2005, in front of the intensive competition and an ever-changing market environment, China Unicom maintained its growth strategy, promoting the transformation of its development model, improving business execution and realising continuous expansion of its core businesses (China Unicom 2005, 30). Further on, China Unicom reorganised its major assets and services to grow into a nationwide fully integrated service provider, which marked a big stride forward in the company's development strategy (China Unicom 2009, 1-2).

Telefónica knew the risk factors relating to the business of China Unicom. This operator cellular businesses faced competition in the fragmented market which we have described above. Such competition may intensify and result in slower subscriber growth, lower tariffs and higher customer acquisition costs, which would materially adversely affect financial condition, results of operations and growth prospects for China Unicom (Securities and Exchange Comission 2007, 5).

The China's quest for development as well as of further restructuring for its telecom industry suffered a setback in the painful year of 2008 (China Unicom 2009, 1-2)[13]. The Chinese government boosted business relations with Spain, a country in need of assistance. During Chinese Prime Minister Wen Jiabao's visit to Spain, he signed agreements with companies under the modalities of cooperation, provision of technical and financial services and direct investment. Telefónica concluded an agreement with China Unicom and its supplier Huawei). As it is known, it was a former state-owned company closely connected with the Spanish government and political elite even after being privatized. The list included some close to political power (Indra — high technology firm —, RTVE — Spanish public television — and

[13] In a gesture of friendship, Telefónica donated one €million to China to help alleviate the effects of the Sicuani earthquake (Telefónica 2008, 133).

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EADS — aeronautics, defence and space —), alongside others in the service and production sectors outside this category. RTVE wanted to get exchange programming and personnel and co-production; the Airbus EADS consortium a high-tech production center with Avicopter, Indra a joint venture with two Chinese companies to produce air traffic control systems in Tianjin and BBVA an offer of automobile financing and private banking with CITIC (Europa Press, 29 January 2009; *Converge*, 8 February 2009; *Computing*, February 2009).

In 2009, Telefónica and China Unicom successively forged a first framework cooperation agreement and a broad strategic alliance through a share-sharing arrangement.

For the first time, a Chinese telecommunications company took a stake in an overseas company. Through this non-monetary agreement, each partner undertook to invest the equivalent of $1 billion in ordinary shares of the other at a rate of 17 new shares issued by China Unicom per one of the partner. The shareholding swap, performed by Telefónica via its subsidiary Telefónica Internacional, SAU, resulted in an increase from 5.38% to 8.06% of Telefónica's stake in China Unicom's voting capital and, in turn, in the conversion of China Unicom into a holder of approximately 0.87% of Telefónica's voting capital[14]. Shortly thereafter, China Unicom acquired and subsequently redeemed shares the Korean operator SKT owned in China Unicom, final act of their strategic alliance[15]. Both operations allowed Telefónica to increase

[14] China Unicom (Hong Kong) Limited 2014 p. 163; CNMV-RI, 21/10/2009 and, 8/10/2009; well-reflected in the international literature (Rizzi and Guo 2012; Jeffries 2010, 2, 004). The 2009 agreement constituted a parasocial arrangement obliged to the partners not to sell or offer to any of their main competitors or issue a significant number of their shares, convertible securities or securities conferring the right to subscribe for or acquire shares in a significant number (Telefónica 2016, 62-63).

[15] China Unicom's cooperative relationship with SKT dated back to the creation of UNISK (Beijing) Information Technology Company Limited, a joint venture at a 49/51 ratio engaged in the CDMA value added services business in China. Furthermore China Unicom operated a second larger separate mobile networks using the more common GSM standard. China Unicom and SKT agreed to cooperate in several areas related to CDMA cellular communications in mainland China (CDMA handsets; value added service; VAS business platform; marketing; IT infrastructure and network): *Financial Times*, 26 September 2006; *Telecompaper*, 21 June 2006; *S&P Global*, 28 September 2009; *Business Korea*, 12 October 2015.

Online ISSN: 2385-7137
http://revistes.ub.edu/index.php/JESB

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its stake in China Unicom to 8.37% of its capital, consolidating its position as the largest foreign shareholder, while China Unicom's stake in Telefónica stood at around 0.9%. In conjunction with these corporate moves, the two companies deepened their strategic alliance in the fields of technology, procurement, provision of services to multinationals, roaming and training for executives of both companies, among others.

Telefónica's scale and position in the ICT value chain made it a perfect partner in the digital environment. To make the most of the opportunities arising from this situation, in 2009 Telefónica strengthened its collaboration with companies in the sector and with partners in other sectors in numerous areas, including innovation, where it consolidated the "Open Telefónica" concept to innovate in collaboration with companies, developers, customers, employees, marketing, networks, processes, etc. Collaboration with other operators enabled Telefónica to maintain its commitment to alliances with other firms in the Internet, content, devices and outsourcing. These included deals with Microsoft, HP, Nokia, Dell, LG and Yahoo. Of particular note was the agreement with Vodafone to share mobile network assets in several European countries and the alliance signed in 2010 with the main operators to set up the WAC (Wholesale Applications Community) platform, which aimed to create applications and offer them to a large customer base of more than 3 billion people. An important framework contract was reached with Huawei, a latecomer aggressive globalizer leader in providing next-generation telecommunications network solutions worldwide. This vertical pact aimed to deploy a telecommunications services platform in thirteen Latin American countries (*Light Reading*, 2 June 2009)[16].

[16] Four strategies of Huawei, leader in CDMA: market-oriented, core R&D and technologies, employee stock ownership and internationalisation of supply chain, management system, the market and the R&D (Guanjing 2013).

Online ISSN: 2385-7137
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In fulfilment of the earlier commitments, in January 2011, Telefónica and China Unicom strengthened their initial strategic alliance and deepened their cooperation in areas such as recruitment, mobile service platforms, services to multinationals, wholesale companies, roaming, and technology, among others. They added a new reciprocal cross-shareholding mutual investment of the equivalent of $500 million in ordinary shares of the other party. Telefónica would raise its stake in China Unicom to approximately 9.7%, while China Unicom would reach 1.37% of Telefónica's share capital. Telefónica was to propose the appointment of a new Chairman of the Board of Directors to represent China Unicom (Comisión Nacional del Mercado de Valores [National Stock Market Commission], Relevant information — hereinafter CNMV-RI —, 23 January 2011) (China Unicom 2015, 151). In detailing the terms, Telefónica would acquire a number of China Unicom shares corresponding to $500 million, through purchases from third parties, to be made within nine months of the signing of this agreement. For its part, China Unicom would immediately acquire 21,827,499 Telefónica shares at an agreed price of €17.16 per share[17].

We have a highly qualified — although undisguised propaganda — assessment of the situation of the Unicom and Telefónica alliance and its prospects in 2010. Lu Yimin, president of China Unicom, acknowledged that cooperation between the companies was going tailwind (*El Economista*, 10 February 2010). He revealed that at this stage the company did not have a clear plan to join Telefónica's Board or to increase its stake in the Telefónica Group, but left it until later to assess the investment outcome and business performance to further elaborate on the plans. The Chinese executive acknowledged that multiple factors at play, including capital

[17] Arithmetic average of the official closing price of Telefónica's shares on the Madrid Stock Exchange during the thirty consecutive trading days prior to 14 January 2011 - using a formula analogous to that agreed in their initial agreement signed on 6 September 2009.

Online ISSN: 2385-7137
http://revistes.ub.edu/index.php/JESB

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market performance and investment strategy, closed the way to clear-cut necessary conditions. Ultimately, he downplayed the importance of a possible seat on the Telefónica Board, because it would not affect cooperation on capital, business development and increasing quality of service. For its part, he had no objection or reservation to Telefónica increasing its shareholding in China Unicom.

In substance, he expressed satisfaction with the good results of the initial strategic partnership agreement and its extension. The cooperation went in several directions; exploitation of economies of scale with the joint procurement of equipment; development of infrastructure and services, with the mobile operating platform and the first choice in international roaming and, finally, achievements at the corporate level, with a structure with senior management from both companies to steer the cooperation. Within the multiplicity of areas of collaboration, the joint procurement of equipment was of huge importance because it reduced costs in the future. At that very moment, it took the form of the joint procurement of ADSL modems. After securing a WCDMA licence, joint procurement of core equipment with Telefonica enabled China Unicom to build the world's largest WCDMA network in a short period of time, backed through the China-China-Foreign scheme of rising fund from the foreign companies.

Obviously, the initial stage of the collaboration did not allow for very clear data on the subsequent savings from joint purchases. However, he admitted a minimum saving of 30-31% on the purchase of broadband equipment alone. Regarding the importance of Telefónica's experience in the development of China Unicom's WCDMA technology, he pointed out that one of the reasons for the success was due to Telefónica's assistance in that standard, which had a European character and had been the goal of the agreement with the Korean SKT. Telefónica had a great deal of experience in network knowledge and construction as well as in

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technological development. This essential contribution was complemented by the experience learned from other major operators around the world. The collaboration between China Unicom and the iPod company had great importance in terms of brand and service enhancement, but among 3G users — 2.74 million in December — iPhone users did not carry much weight. A major issue in the relations between the two partners was the international expansion of each of them separately. According to the already mentioned parasocial agreement, neither company could invest in markets where their respective competitors were located. The high-ranking executive of China Unicom saw Latin America as a very important part of the company's strategy and that was another reason for its cooperation with Telefónica[18]. But China Unicom was planning to offer service to customers in Latin America and was counting on Telefónica's presence there. The aim was to jointly develop coverage and services in other parts of the world, namely Asia and Africa, although they had not defined specific targets. Cooperation with other areas or with other operators could be unilateral or joint, but it all had to do with the market situation (*Telecompaper,* 9 February 2010; Reuters, 9 February 2010).

The performance of China Unicom's business and in particular the 50% drop in profit in 2009 deserved special attention. In the previous year, a very large part of the ¥3.8 billion (around €407 million) profit was due to the sale of the CDMA network (worth ¥2.74 billion). On the other hand, large investments could affect the results and China Unicom had invested 110 billion yuan in the construction of new networks[19].

[18] In the context of Asia's growing economic weight in Latin America, China became the largest trading partner of several countries - Brazil, Chile and Peru. China sought access to the region's raw materials and natural resources, while it exported mainly intermediate and capital goods and became the third largest investor in the region, with 8% of total investments, primarily in natural resources (Casanova 2015, 72-73).

[19] China Unicom purchased CDMA2000 1X equipment from Lucent Technologies to build 3G networks in four regions: Shandong, Hubei, Inner Mongolia and Shaanxi. Lucent was expanding in China and its Lucent China unit had eight regional offices, two Bell Labs branches and five R&D facilities in China: Network Computing, 18 May 2004. China Unicom, the last of the country's three wireless licensees to launch a 3G network, launched it in 55 cities and planned to expand quickly coverage to 284 cities. By the end of 2005, China Unicom finished network

A first joint equipment order followed to the partnership agreement and share swap deal completed in October 2009. The tender was valued at around €1.745 billion and targeted more than 40 telecommunications equipment suppliers worldwide. The winner of the contract was to supply connection equipment for up to 16 million residential ADSL lines (*Telecompaper*, 11 January 2010).

Further on, in 2015, Telefónica and China Unicom extended the strategic collaboration of jointly purchase to handsets with the aim of selecting smartphones with common specifications and offering better data services to their customers in China, Latin America, and Europe (Table 2). It was the first of other joint purchases, seeking innovative formulas in the procurement process between two leading telecoms operators, Telefónica and China Unicom. The first tangible result was the purchase of Fourth Generation (4G) handsets. Both partners designed consumer propositions as well as specific marketing plans in all countries. The project offered to Chinese brands such as Lenovo and TCL a window of opportunity to expand in very important mobile markets thanks to the large global scale of Telefónica and China Unicom (Telefónica, Communication room, 29 June 2015).

The partners selected the LTE C630 handset from China's Phicomm, a popular smartphone in China, to offer 4G data services in Telefónica's key Latin American markets. This new joint purchase allowed China Unicom to continue supporting the internationalisation of the Chinese handset manufacturers with which it collaborates thanks to Telefónica's global scale. The

construction and launched CDMA service in Macau, thereby becoming the first Mainland Chinese telecom service provider to operate outside Mainland China (China Unicom 2005, 34). Unicom released more than 20 W-CDMA handsets (models from Sony Ericsson, Samsung, Huawei and ZTE) and expected to market phones from Nokia, Motorola, LG and Sharp (*RCR Wireless News*, 21 November 2001 and 13 February 2003; *TeleGeography*, 18 May 2009). China Mobile began trials of its TD-SCDMA-based 3G services in 2008 and achieved coverage of 38 cities within a year, while China Telecom launched in April 2009 its CDMA20001x EV-DO network in 120 cities, seven years after its pioneering deployment by SKT.

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marketing of this handset was part of Telefónica's strategy to boost the penetration of 4G devices and services at affordable prices in the markets where it operated. The Chinese and Spanish operators regularly share information on strategy alignment, global market trends, and implementation of common initiatives to create value and reinforce each other's leadership in the global mobile ecosystem (Telefónica Communication room, 29 February 2016).

The Telefónica Group purchased stakes in China Unicom in 2011 for an amount of €358 million in such a way that at the end of this year, the Group's stake in this company amounted to 9.57%. In 2012, Telefónica, S.A. through its wholly owned subsidiary, Telefónica Internacional, SAU, and China United Network Communications Group Company Limited, through a wholly-owned subsidiary, sealed a definitive agreement whereby the latter acquired 1,073,777,121 shares of China Unicom, owned by Telefónica (equivalent to 4.56% of the company's share capital), implying a total amount of HK$10,963.3 million, approximately €1,128.9 million. Once executed this transaction allowed Telefónica to increase its financial flexibility while remaining a significant shareholder of China Unicom with a 5.01% stake. Telefónica undertook not to transfer any shares in China Unicom that it held directly or indirectly for one year. Both companies reaffirmed their senior management positions on the Board of Directors of the partner (CNMV-RI, 10 June and 30 July 2012; Telefónica 2016, 32-3; Lang and Owens 2018).

In 2014, Telefónica S.A. undertook an organisational restructuring of the Group (CNMV-RI, 26 February 2014), which started a biennium of slimming down of Telefónica's existing holdings, with certain particularities. The operator made acquisitions - such as the purchase of E-Plus, a subsidiary of KPN in the German market, for example - and intensified its interest in another area of the value chain -media and television[20]. Telefónica strengthened its foothold in

[20] Telefónica became the leading mobile operator in the German market: CNMV-RI, 1 October 2014.

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China with the creation of Telefónica Technology Beijing Company Limited to support its international services activity in Asia. It depended on Telefónica Internacional until 2015 and was then attached to Telefónica Latinoamérica Holding SL (TLH), headquartered in Madrid and oriented to investment and consulting. The difficulties of the Covid19 pandemic forced Telefónica to liquidate this subsidiary, which began to carry out its activity from Hong Kong and Madrid (Telefónica Latinoamérica Holding SL.

https://www.telefonica.com/es/wp-content/uploads/sites/4/2022/06/estatutos-Telefonica-Latinoamerica-Holding-SLU.pdf; *CincoDías*, 19 September 2022)[21].

The slimming down of Telefónica's existing holdings had a particular impact in China. In 2014, Telefónica divested 2.5% of the share capital of China Unicom (Hong Kong) Limited through a block trade, for a total consideration of HK$6.66 billion, approximately €687 million at current exchange rates. Nevertheless, Telefónica kept intact the strategic alliance with China Unicom (CNMV-RI, 10 November 2014).

The second transaction took place in mid-2016. Telefónica sold 1.51% of the share capital of China Unicom (Hong Kong) Limited through a block trade placement process, amounting a total of HK$2,822 million, approximately €322 million. This transaction was part of the Company's asset portfolio management measures and the Company's medium-term deleveraging objective. Telefónica retained a stake of close to 1% in China Unicom without breaking the strategic alliance with China Unicom, which had been recently strengthened through cooperation in digital areas such as the joint venture for big data (CNMV, HR, 10 July,

[21] The company was derecognised, with a portfolio cost of one €million and €871,000 at the date of liquidation (Telefónica Latinoamérica Holding, 2021). Almost unknown is Telefonica China, B.V., an instrumental holding company domiciled in the Netherlands and subsidiary of Telefónica Internacional, S.A. (100%): see Telefónica (2009, 109).

Online ISSN: 2385-7137
http://revistes.ub.edu/index.php/JESB

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2016; China Unicom, 6; Telefónica 2016, 62-63). In this field of intense growth, Telefónica in 2012 had launched in the UK its new big data business unit, Telefonica Dynamic Insights, a tool to provide services to companies and governments with analytical insights based on mobile network and machine-to-machine (M2M) data. Its first product, Smart Steps, used "anonymised and aggregated mobile network data to enable public sector organisations and companies to measure, compare, and understand what factors influence the number of people visiting a location at any time" (OECD 2015, 78).

In 2015 Telefónica and Unicom established (45%/55%) The Smart Steps Data Technology Company in China for big data services, later joined by Chinese e-commerce giant JD.com as a third partner (*La Vanguardia*, 6 March 2019)[22]. Telefónica brought the technology, suitably adapted to the local market, while China Unicom provided the usage and analysis for its millions of customers (Tórtola and González 2018, 11).

It was expected that Smart Steps services could be applied extensively in China in countless areas activities and services. Smart Steps service will further improve China Unicom's deployment in the big data market and enhance China Unicom's market influence in this area. For Telefonica, the joint venture enabled access to the tremendous potential of the big data market of China – the second largest economy in the world-, and for the first time extended its Smart Steps operations beyond the Telefonica global operational footprint (Telefónica, Communication room, 5 January 2016). Smart Steps served more than half of China's major banks. In the urban planning sector, the joint venture achieved market leadership in China in

[22] The Spanish group held its stake through Telefonica Iot & Big Data Tech. The third shareholder joined the joint venture through a capital increase subscribed by Suqian Xindongteng Business Service Co., Ltd, a company controlled by JD.com; the stake of Telefónica diminished to 37.5% (Telefónica, Consolidated Financial Statements 2020, 11; *La Vanguardia*, 6 April 2019).

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just two years. More than two hundred Chinese cities were using its geolocation services to design the development of different urban projects and the provision of public services. Finally, Smart Steps also offered its services to large companies to select the location of their business premises throughout China.

China Unicom joined Telefónica's Partners programme, along with groups such as Bouygues, Etisalat, Sunrise, Russian Megafon and O2 Czech Republic, to cooperate in key business areas such as digital services, roaming, services to multinationals and equipment purchases. The alliance with Unicom facilitated Telefónica's agreements with major Chinese equipment manufacturers in mobile devices and networks (*Telecoms*, 28 May 2013; *Échos du Net*, 28 July 2014; *Les Mobiles*, 11 July 2011; *La Vanguardia*, 6 March 2019).

TABLE 2. China Unicom-Telefónica agreements

Year	Chinese partners	Foreign Partner	Content
2014	China Unicom; Tsinghua Technology and Innovation	Telefónica Open Future	Fostering a global platform to share innovation sources and resources
2015	China Unicom; Tsinghua Technology and Innovation	Telefónica Open Future (Annexe 1)	Global call to accelerate Internet of Things (IoT) startups
2015	China Unicom	Telefónica	Strategic partnership programme for the joint purchase of smartphones with common specifications
2015	China Unicom	Telefónica	Sharing their data centres, first step towards wider and larger-scale cooperation in the cloud business
2016	University of Tsinghua	Telefónica	Fostering digital education around the world
2016	China Unicom	Telefónica	Joint venture Smart Steps Digital Technology Company Limited to provide big data services in China

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Year	Chinese partners	Foreign Partner	Content
2017	Tsinghua Holdings (THTI)[23]; China Unicom	Telefónica Open Future	First joint call aimed at startups willing to be part of a mixed acceleration, business development and immersion process between the Wayra academies in America and Europe.
2017	THTI; China Unicom	Telefónica Open Future	**China Open Future Second call for startups** won by Pixoneye and Bernstein
2018	China Unicom	Telefónica	IoT agreement to gain access to each other's networks to deploy their IoT services and offer them to business customers
2019	JD Digits China Unicom	Telefónica	Strategic investment of JD Digits in Smart Steps Technology Co. Ltd (worth 100 million yuan, around €13.2 million: 16.7% stake)
2020	China Unicom, KT and Telstra	Telefónica	Collaboration on the development of the Multi.Operator Multi-Access Edge Computing experience within the GSMA Operator Platform initiative (design a solution for operators to expose and monetise their network capabilities)

Source: Elaborated from Institute for Mergers, Acquisitions and Alliances.

Thus, divestment combined with agreements of various kinds that brought China Unicom and Telefónica closer together. Big data and smart steps were star products, but other goods also

[23] THTI is a powerful science and technology service provider and science park manager specialised in the provision of innovative technology services as a member of the technology innovation platform of Tsinghua Holdings Co., Ltd., a fully state-owned enterprise, solely invested by *Tsinghua* University, dedicated to the technology service industry (OECD 2008, 248). THTI's strategy is geared towards regional innovation and technology business development through an international operation and investment network focusing on five major business areas covering innovation and entrepreneurship, science parks, investment and incubation, technology financing and international business. THTI operates 18 science parks in China with other partners in more than 50 cities. It manages a strong incubation ecosystem that integrates five entities -Innoway, Virtue Inno Valley, Binggo Café, Lean One Academy and TIPPark Silicon Valley- and supplies to more than 1,000 technology companies, having invested in more than 100 companies.

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gained special relevance, forming a significant list of around ten initiatives between 2014 and 2020 (Table 2).

5. Conclusion

The shaping of ICT and the widespread regulation caused profound transformations in telecommunications on a global scale.

This research has explored the driving forces behind the diverse patterns in the evolution of telecommunications and, in particular, the rationale for international alliances in the context of the globalisation and the extension of the value chain induced by technological change.

The work tries to answer two interrelated questions: why Telefónica from China's side and why China from Telefónica's position. China was looking for a reliable technology partner for its weak market segments and a bridge to Latin America. Telefónica was pursuing to expand its mobile customers in a country with high growth potential (NYT) while reducing equipment supply costs in an oligopolistic market through economies of scale. The research has addressed the forging of strategic alliances between operators from distant latitudes and different cultures. The case study has focused on the operators China Unicom and Spain's Telefónica in the roughly twenty years of the 21st century using sources from the companies involved and documents from specialised institutions. The research reveals the full sequence of Chinese firms and Telefónica relationship. The evidence points to a process that is not as simple as some theories of internationalisation advocate. It comprises primary investment in a representative office and foreign direct investment from Telefonica to a strategic alliance and shareholding exchange agreements.

The study shows that Foreign Direct Investment (FDI), the conventional mode of entry for a market of big size, is not the right/unique way to enter the services sector. Adversely, the need for cooperation in the knowledge and capital-intensive services and the coincidence in strategies led to the configuration of international alliances of companies, which entailed sometimes non-monetary shareholding exchanges and the start of a Chinese company abroad. The internationalisation through cooperation between operators of services resulted in mutual benefits for the partners. Furthermore, the joint purchase programmes had vertical effects and contributed to the international expansion of the Chinese equipment manufacturers, which, ultimately, became multinationals.

Appendix. Projects in the field of the Internet of Things

China Unicom, THTI and Telefónica Open Future, Telefónica's global investment and entrepreneurship network, selected eight projects developed in the field of the IoT. Five Chinese startups (Yaoyao, Mugeda, Vigo, Amesante and LoveLive), along with two Spanish startups (Ubikwa and Zolertia) and Chilean startup WiseConn were the winners of the joint call for proposals launched in March in Barcelona during MWC2015. A thousand startups from 16 countries participated in the competition, targeting all types of economic sectors (Telefónica, Communication room, 1 September 2015).

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