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How to Catch a Unicorn

Case Studies

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Preface

These case studies make up the second part of a report entitled 'How to catch a Unicorn'. They are the basis for an analysis, contained in the first part of this report, of tech companies with high market capitalisation. Part I and Part II are available as two separate documents.

The report was prepared in the context of the three-year research project on European Innovation Policies for the Digital Shift (EURIPIDIS), jointly launched in 2013 by JRC-IPTS and DG CONNECT of the European Commission. EURIPIDIS aims to improve understanding of innovation in the ICT sector and of ICT-enabled innovation in the rest of the economy.

The project's objective is to provide evidence-based support to the policies, instruments and measurement needs of DG CONNECT for enhancing ICT Innovation in Europe, in the context of the Digital Single Market for Europe and of the ICT priority of Horizon 2020. It focuses on the improvement of the transfer of best research ideas to the market.

EURIPIDIS aims to:

1. better understand how ICT innovation works, at the level of actors such as firms, and also of the ICT "innovation system" in the EU;

2. assess the EU's current ICT innovation performance, by attempting to measure ICT innovation in Europe and by measuring the impact of existing policies and instruments (such as FP7 and Horizon 2020); and

3. explore and suggest how policy makers could make ICT innovation in the EU work better.

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PART I: *An exploration of the universe of tech companies with high market capitalisation is available as a separate document*

PART II – *Case Studies*

Note to the reader

Technology companies with high market capitalisation (often called unicorns) have been getting a lot of attention and media coverage recently.

This document (Part II of the report 'How to catch a Unicorn') aims to document the phenomenon through the investigation of a qualitative sample of 30 companies that have been valued above the one billion US dollar threshold in their recent history.

It presents briefly each of the 30 companies, and reflects the results of a review of dedicated reports[1], technical journals, trade press articles, and annual reports of publicly traded companies. Data collection ended late 2015.

The reader needs to know from the start that the available information is highly heterogeneous in style and content. It has missing information, errors and contradictions. This is even more the case for those companies in our sample that are not listed on a stock exchange.

Part I of the report is available as a separate document. It offers a thematic approach to the observations and outlines the lessons learned from the information gathered in Part II.

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[1] Atomico (2014, and 2015), Bloomberg/FT (2014), Ezratty (2014), Fortune (2015), A.Lee (2013, 2015), Gilles and Marchandise (2013), Wall Street Journal (2015).

SECTION 1: UNICORNS

Airbnb (US, 2008) - Renting your own space

A brief corporate history

Airbnb was founded in 2008 by Brian Chesky (CEO), Nathan Blecharczyk (CTO), Joe Gebbia (CPO). The company is an online community marketplace for people to list, discover, and book accommodation around the world. Listings include, but are not limited to: vacation rentals, private rooms, entire apartments, and bed and breakfasts. Wu et al (2012: 2) report that B. Chesky and J. Gebbia were not able to pay for housing while attending a design conference and then came up with the idea of trying to rent their own accommodation to subsidize their trip.

Airbnb claims to connect people (claiming 25 million total guests) to travel experiences, offering a wide range of prices in more than 34,000 cities and 190 countries, allowing anyone from private residents to commercial properties to rent out their extra space. As of 2015, the room-rental platform San Francisco-based start-up hosts more than 1 million listings on its website, (up from 120,000 in 2012). It opened 11 global offices in 2012 and served 3 million people (Chudgar, 2013). As stressed by B. Helm (2014) the company offers more lodging than Hilton Worldwide or InterContinental Hotels Group[2] or any other hotel chain in the world.

Airbnb - Revenue, Employee, and Booking Rate Growth (2008-2012)

Income Statement	2012	2011	2010	2009	2008
Revenues	$45,000,000	$18,000,000	$6,800,000	$850,000	
Employee Figures	**2012**	**2011**	**2010**	**2009**	**2008**
Total Employees	500[1]	140	13	4	
Productivity (Revenue/Employee)	$90,000	$128,571	$523,077	$212,500	
Sales Breakdown	**2012**	**2011**	**2010**	**2009**	**2008**
Booking Rates	15,800,000[2]	1,261,440	525,600	105,120	365

Notes

Financial Notes:

* Airbnb, Inc. fiscal year end: 12/31

1 As of July 2012

2 Projected

Source: Wu et al (2012).

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[2] 722,575 rooms in 4,900 hotels.

As illustrated by the above table, the company starting from scratch, has been rocketing over the years even if the level of revenues reached as of 2012, USD 45 million is a bit less impressive. The ratio revenue/employee looks above average.[3]

As with other companies, the mission emphasises the community mindset and the connection to the world. One of the founders, Chesky, explained the way he perceives this dimension of the project: "*It's about people and experiences. At the end of the day, what we're trying to do is bring the world together. You're not getting a room, you're getting a sense of belonging*."(quoted by Helm, 2014).

Like the disruptive car service operator, Uber, Airbnb also finds itself on the edge of legality. It has had to face a lot of legal challenges as it has broken several laws and regulations (like the hotel tax in the US or security issues). For instance, Barcelona fined Airbnb EUR 30,000 for breaching local tourism laws. Of course, like the reaction of taxi companies to Uber, the hotel industry is campaigning against these activities, and trying to increase the legal pressure. Airbnb is trying to convince officials that it is contributes to the local economy with the production of numerous reports[4] aiming at demonstrating positive impacts

Business model

The company was created as a result of a bet about the willingness of flat owners to rent their own places to visiting guests. Now the company claims that Airbnb is the easiest way for people to monetize their extra space and showcase it to an audience of millions. This activity is often described as being part of the "sharing economy"[5] where people share all kind of things, starting with "personal" information on their Facebook account. Airbnb is often quoted as the most prominent example of a huge new "sharing economy", in which people rent beds, cars, boats and other assets directly from each other, co-ordinated via the internet (Economist, 2013). Wu et al (2013) write about collaborative consumption.

For flat owners, creating a listing page is free. They will then be charged a 3% service fee when a reservation is confirmed. The process is similar for guests, membership is free and guests are charged a 6-12% transaction fee on their credit card once the host has accepted the booking. Owners are free to set the price, availability, and any reservation requirements for their guests.

After some initial difficulties; Airbnb set up a global support team and introduced an Airbnb Host Guarantee (protection up to USD 1,000,000) and a cancellation policy. Payment and communication are implemented only through the Airbnb platform. Both hosts and guests review and are reviewed.

To build its image and brand, the company incurred massive costs: sending professional photographers to shoot thousands of Airbnb listings, and paying salaries for an army of MBAs and PhDs to help perfect the customer experience. Airbnb now offers its hosts free professional photography with over 3,000 freelance photographers who have taken more than one million photographs of Airbnb listings.

The company invested heavily in marketing (compelling display ads in the Google Display Network) and infrastructure. In 2010, it introduced its Airbnb App to book, manage itineraries while traveling, and allow communication between hosts and guests. The company also invested in technology infrastructure, as it needed to scale up quickly and deliver large amounts of data, using a minimum of resources and without sacrificing service.

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[3]   No indication of profitability could be found.
[4]   See under press release at https://www.airbnb.com/press/news
[5]   See The Economist. http://www.economist.com/news/leaders/21573104-internet-everything-hire-rise-sharing-economy

Financial data

Airbnb, Inc. is privately-held and has triggered significant interest from venture capital investors. Airbnb raised venture capital totalling more than USD 794 million: USD 7.2 million in 2010 from Greylock and Partners and Sequoia Capital and other prominent angel investors, and another 112 million in 2011. The company is now a 10 billion dollar company (Helm, 2014). The firm started by joining the Y Combinator's incubator program[6].

Founders

B. Chesky and J. Gebbia graduated from the Rhode Island School of Design, N. Blecharczyk is a computer engineer.

Key words: sharing economy, online community market place.

Source: https://www.airbnb.com/

   http://www.akamai.com/dl/product_briefs/Innovation_Story_Airbnb.pdf

Chudgar, S., (2013), Airbnb's Annual Report: We're Still Growing. http://www.inc.com/sonya-chudgar/airbnb-annual-report-skirts-legal-issues.html

Helm, B., (2014), Airbnb Is Inc.'s 2014 Company of the Year. http://www.inc.com/magazine/201412/burt-helm/airbnb-company-of-the-year-2014.html

Wu, S., Lee, F., Reynard, J. (2012), *Airbnb*, UCLA, Economics 106T, Fall 2012. UCLA Economicswww.econ.ucla.edu/sboard/teaching/tech/Airbnb.pdf

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[6] A famous Silicon Valley start-up incubator.

Akamai[7] (US, 1998) - Intelligent, clever and cool

A brief corporate history

In 1995, MIT Professor of Applied Mathematics Tom Leighton, was joined by other scientists with expertise in computer science and data networking to develop the mathematical algorithms necessary to handle the dynamic routing of content and solve what was, by then, a frustrating problem for Internet users. These world-class scientists developed a set of breakthrough algorithms for intelligently routing and replicating content over a large network of distributed servers, without relying on centralized servers typically used by website owners today.

The company was founded by Jonathan Seelig and Tom Leighton, and incorporated in August 1998. It launched a commercial service in April 1999 and announced Yahoo as a customer. Akamai, located in Cambridge (US, Mass) is now the leading provider of cloud services for delivering, optimizing and securing online content and business applications. The company is the primary player in content delivery expediting space. It uses advanced computing techniques to deliver a streamlined web experience to the end user, ramping up website speed and protecting from crashes. Its first customer was Yahoo. Now, their customers include the top 30 media and entertainment companies, more than 150 of the world's leading news portals, nine of the top 10 largest newspapers, eight of the top 10 online publishers and nine of the top 10 social media sites.

Akamai - Content delivery network

A content delivery network is designed to distribute content over a network and maximize bandwidth. Its purpose is to improve quality of service by taking data traffic off the major backbone of the Internet. These specific specialized sub networks (like Akamai, Limelight networks or Level 3) are being deployed to offer enhanced services to content providers, placing content on the 'network edge' closer to the customer (instead of a central server) to reduce the latency for video delivery.

Akamai's Media Content Delivery Solutions are designed to provide fast and reliable HTTP delivery of media content to address the broad variety of network types – fixed or mobile – at varying connection speeds. The company focuses on helping media customers improve the performance of their offerings through the scalability, reliability and reach of the Akamai Intelligent Platform, its distributed network of servers and software.

Each delivery solution is optimized for the type of content being provided as follows:

• Download Delivery: accelerated distribution for large file downloads, including games, progressive media (video and audio) files, documents and other file-based content.

• Adaptive Delivery: solutions for streaming video content in bitrate streaming formats, including Apple's HLS, Adobe's HDS, Microsoft's Smooth Streaming and the MPEG-DASH format.

Source: author**.**

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[7] Hawaiian for "intelligent, clever and cool".

Since 1998, Akamai has retained content delivery as its core business, but has also branched out with two tiers of professional Internet consulting services along with related digital media and site delivery solutions. These businesses target firms seeking to deliver a rich user experience quickly and consistently. Akamai has deployed the most pervasive, highly-distributed cloud optimization platform with over 170,000 servers in 92 countries within over 1,200 networks. The role of the platform is to constantly monitor Internet conditions to:

- identify, absorb, and block security threats;
- provide device-level detection and optimization;
- make routing and delivery decisions based on comprehensive knowledge of network conditions; and provide customers with business and technical insights into their online operations.

Akamai releases annually its *State of the Internet Report*, reporting the major incidents globally over the Internet.

Business model

Their 2014 revenues were split across segments as follows: media delivery solutions USD 917,407 million (46.7%), performance and security solutions USD 900,713 (45.8%, and service and support solutions USD 145,754 million (7.4%).

In 2014, Akamai helped more than 25 broadcasters worldwide deliver live and on-demand online video from the Sochi 2014 Winter Olympics (a 4K streaming event already). The company provides granular, real-time media analytics to understand each aspect of the viewer experience. In recent years, there has been a significant increase in video consumption over the Internet, and this has been reflected in Akamai's revenue growth. The company offers options (transcoding solutions) for the bandwidth and bit rates needed (ranging from 10 to 20 megabits per second) for the emerging 4K world. Akamai claims to lead the mobile market by serving over 200 billion API calls, over 145 TeraBytes of mobile app data and thousands of mobile sites on its Akamai Intelligent Platform every day.

Akamai provides services to broad amount of industrial sectors. Akamai enables companies to deliver large media files safely and securely across the globe. For instance, they service Airbnb (see case study), allowing them to scale up the business as demand increases. The company provides online gaming resources and solutions to companies like Garena (see case study).

As of 31 December 2014, the company had 1,337 research and development employees; research and development expenses were USD 125.3 million, USD 93.9 million and USD 74.7 million for the years ended 31 December 2014, 2013 and 2012, respectively.

Financial data

Akamai went public just six months after it began offering its services when the company had revenues of just USD 1.2 million and had reported a net loss of USD 28 million. The 1999 IPO was, then, the fourth-largest first-day increase ever. Akamai closed at USD 174,312 with a 458% increase from its initial offering price It collected over USD 1.3 billion instead of the expected 234 million[8], the company was initially aiming at. That gave the company a total market capitalization of nearly USD 16 billion. Akamai stated then that it "*anticipates using net proceeds from the offering for working capital and general corporate purposes.*"

Although very profitable (with a net income ratio of 17% in 2014, 18.6% in 2013, 14.8% in 2012), the company has never distributed any dividends, keeping the earning for use in the operation of the business. In 2015, its market cap was of USD 13.42 billion.

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[8] Considered in 1999 to be one of the highest IPOs ever.

Akamai - Evolution of the revenues and earnings (2010-2014)

Year ended December 31,	2014	2013	2012	2011	2010
Revenue	$ 1,963,874	$ 1,577,922	$ 1,373,947	$ 1,158,538	$ 1,023,586
Total costs and operating expenses	1,474,355	1,163,954	1,059,460	867,889	769,309
Income from operations	489,519	413,968	314,487	290,649	254,277
Net income	333,948	293,487	203,989	200,904	171,220
Basic net income per share	1.87	1.65	1.15	1.09	0.97
Diluted net income per share	1.84	1.61	1.12	1.07	0.90
Cash, cash equivalents and marketable securities	1,628,284	1,246,922	1,095,240	1,229,955	1,243,402
Total assets	4,001,546	2,957,685	2,600,627	2,345,501	2,352,676
Convertible senior notes	604,851	—	—	—	—
Other long-term liabilities	117,349	65,088	51,929	40,859	29,920
Total stockholders' equity	2,945,335	2,629,431	2,345,754	2,156,250	2,177,605

Source: Annual Report (2014: 29).

Founders

Prior to being CEO of Akamai, Tom Leighton was a Professor of Applied Mathematics at MIT and a member of the Computer Science and Artificial Intelligence Laboratory (CSAIL). Dr Leighton holds numerous patents involving content delivery, Internet protocols, algorithms for networks, cryptography, and digital rights management.

Jonathan Seeling earned his Bachelor of Science degree in Physics, with honours, from Stanford University. He enrolled for an MBA at the MIT Sloan School of Management. Before he co-founded Akamai, Jonathan worked at ECI Telecom in Israel in product marketing and new product development, working with customers in nearly 40 countries.

Key words: cloud services, content delivery, online TV business models.

Source: www.akamai.com/html/about/index.html

Annual Report 2013, 2014: http://www.akamai.com/dl/investors/akamai-annual-report-2014.pdf

www.crunchbase.com/organization/akamai-technologies

http://finance.yahoo.com/q?s=AKAM

Ali Baba (China, 1999) - The e-WTO?[9]

A brief corporate history

Alibaba Group (Alibaba.com and Alibaba.com.cn) was established in 1999 by 18 people led by Jack Ma, a former English teacher from Hangzhou, China. From the outset, the company's founders shared a belief that the Internet would level the playing field by enabling small enterprises to leverage innovation and technology, to grow and compete more effectively in the domestic and global economies. Since launching its first website to help small Chinese exporters, manufacturers and entrepreneurs to sell internationally, Alibaba Group has grown into a global leader in online and mobile commerce.[10]

Alibaba Group describes its mission as making it easy to do business anywhere and claims it enables millions of commercial and social interactions among users, between consumers and merchants, and among businesses every day. The company and its related companies operate leading wholesale and retail online marketplaces and Internet-based businesses offering advertising and marketing services, electronic payment, cloud-based computing and network services and mobile solutions, among others. It provides technology and services to enable consumers, merchants, and other participants to conduct commerce within its ecosystem.

Alibaba's Group Executive Chairman, Jack Ma, stated[11] at the Davos 2015 Forum that he wants Alibaba's online platforms to serve 2 billion consumers all over the world, and to help 10 million small businesses outside of China to sell into global markets. He described his company as "*…an Internet company (that) happens to be in China.*" About the mission: helping small business (do business) easier, he added: "*So how can we make a platform for global small business? My vision is if we can help Norway small businesses sell things to Argentina, and Argentina consumers can buy things online from Switzerland, we can build up what I call … the 'e-WTO.'*" J. Ma stressed how, in 2014, Alibaba Group's Tmall.com B2C site helped Alaskan fishermen sell salmon to China and farmers in Washington state sell more than a hundred tons of cherries direct to 80,000 Chinese families that ordered online, with deliveries taking place in days instead of weeks.

Indeed, Alibaba.com is a leading English-language wholesale platform focused on supporting global trade. It was China's largest global online wholesale marketplace by revenue in 2013, according to iResearch. Sellers on Alibaba.com are typically manufacturers and distributors based in China and other manufacturing countries such as India, Pakistan, the United States and Thailand. As opposed to Amazon, Alibaba is not customer-centric, his customers are the small businesses that use the firm's Taobao and Tmall marketplaces. J. Ma explained this strategic choice: "*Alibaba is not a company for*

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[9] J.Ma at the 2015 Davos Forum. Shermon, S., Westland, C., (2009) use the term "electric souk" instead.

[10] An amusing anecdote about the growing reputation of the company: in the show's revamped opening sequence of HBO's Silicon Valley new season, Alibaba has taken over Yahoo (Millward, 2015).

[11] Reported by American journalist Charlie Rose.

consumers. Small businesses know more about the needs of their customers. We had to empower our power sellers and our SME's to support their customers." (Do, 2014a).

The Alibaba ecosystem

The Alibaba ecosystem seems to have been organised to make the most out of a platform which is treated as if it were a multisided market. Therefore the relationships between players (buyers, sellers retail and wholesale) are carefully organised. All the necessary pieces (specialised entities) of the ecosystem have been introduced one after the other (Taobao marketplace in 2003, Alipay to secure trust in 2004…). According to the company, the ecosystem is designed so all participants – consumers, merchants, third-party service providers and others – have an opportunity to prosper. The figure below depicts the network effect of its ecosystem. The company sums up the way the ecosystem works as follows: the interactions between buyers and sellers create network effects in that more merchants attract more consumers, and more consumers attract more merchants. In addition, their marketplaces are interconnected in that many buyers and sellers on one marketplace also participate in the activities of some of the other marketplaces, thereby creating a second-order network effect that further strengthens the ecosystem.

The pieces of the Alibaba ecosystem and timeline

- 2003: Taobao Marketplace.
- 2004: Alipay.
- 2007: Alimama (online marketing technology platform).
- 2008: Tmall.
- 2009: Alibaba Cloud Computing.
- 2010: Mobile Taobao App.

The network effect dynamic of Alibaba's ecosystem
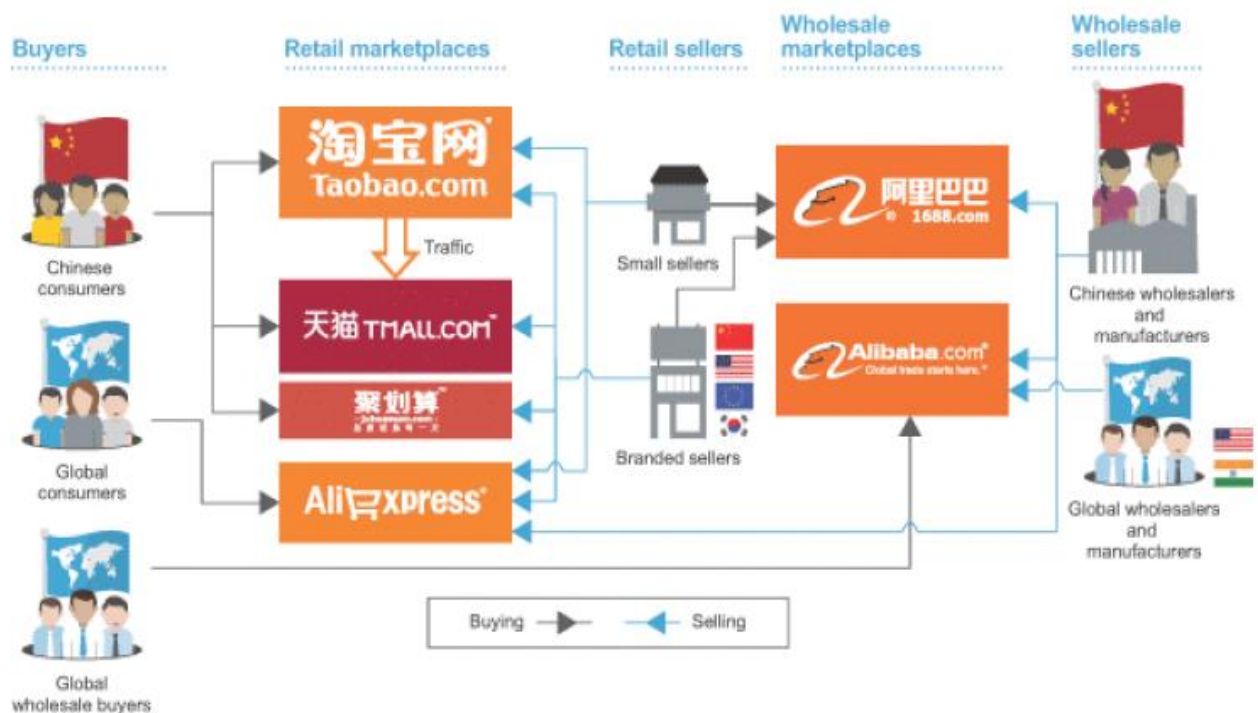
Source: Alibaba.

The players

<u>Buyers</u>

Buyers on Alibaba.com are located in numerous countries all over the world - the United States, India and Brazil are among the leaders. Buyers are typically SMEs engaged in the import and export business, trade agents, and wholesalers, retailers and manufacturing companies. Major categories of products purchased on Alibaba.com include consumer electronics, machinery and apparel.

Chinese consumers buy on Taobao Marketplace, Tmall and Juhuasuan. While browsing or searching on Taobao Marketplace, consumers see product listings from both Taobao Marketplace and Tmall. Global consumers buy on AliExpress, Global wholesalers buy on Alibaba.com.

<u>Sellers</u>

Sellers on Alibaba.com may pay for an annual Gold Supplier membership to host a premium storefront with product listings on the marketplace. Sellers may also purchase an upgraded membership package to receive value-added services such as upgraded storefront management tools, pay-for-performance (P4P) marketing services[12], higher rankings from keyword search, custom clearance, VAT refund and other import/export business solutions.

Retail sellers: Small sellers in China sell on Taobao Marketplace and AliExpress. Chinese brands sell on Taobao Marketplace, Tmall, Juhuasuan and AliExpress and global brands sell on Tmall Global. Sellers source products on 1688.com.

Wholesale sellers: Chinese wholesalers and manufacturers supply retail merchants in China on 1688.com and global wholesale buyers on Alibaba.com. Chinese wholesalers and manufacturers supply directly to global consumers on AliExpress. Global wholesalers and manufacturers supply global wholesale buyers on Alibaba.com.

Alipay was established to address the issue of trust between buyers and sellers online. Alipay provides payment and escrow services for transactions on Taobao Marketplace, Tmall, 1688.com and certain of our other sites through contractual arrangements with us. Alipay also provides payment and escrow services to third parties in China. Alipay is the principal means by which buyers and sellers settle transactions on China retail marketplaces. Alipay receives a fee for the payment and escrow services it provides to the company's marketplaces.

In a typical transaction, the buyer can pay for purchases in various ways: from his/her personal Alipay account, credit card, or transfers from an online bank account. Personal Alipay accounts may be funded by electronic fund transfer or pre-paid cards, or they can be linked directly to the buyer's credit card or bank debit card under Alipay's "express payment" function.

Buyers and sellers may also choose to settle transactions outside of Alipay through other mutually agreed-upon payment method, such as cash on delivery. In the twelve months which ended 30 June 2014, 78.1% of GMV[13] on the China retail marketplaces was settled through Alipay's escrow and payment processing services. Through Tmall and Juhuasuan, commissions are earned only on transactions that are settled through Alipay.

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[12] Sellers bid for keywords that match product or service listings appearing in search or browser results on a cost-per-click basis at prices established by the online auction system, which facilitates price discovery through a market-based bidding mechanism.

[13] Gross merchandise volume or GMV is a term used in online retailing to indicate a total sales dollar value for merchandise sold through a particular marketplace over a certain time frame

Diversification

In 2013, Alibaba invested in the fast growing O2O[14] sector, in companies like AutoNavi, a leading provider of digital map content and navigation, location-based solutions in China. In 2014, it acquired shares in Intime, a company which manages and operates department stores and malls in China.

Alibaba Group operates its own content delivery network, aliCDN which is the largest in China. It also runs a cloud computing platform Apsara, like Amazon. It has been expanding its line of entertainment services as it continues to seek new businesses outside e-commerce. The Alibaba Group has a 60% stake in Alibaba Pictures Group, its movie unit[15]. In April 2015, the company agreed to buy Guangdong Yueke Software Engineering Company[16], which supplies cinema-ticketing systems, for RMB 830 million (USD 134 million). Guangdong Yueke, formerly owned by the state-run Yueke Technology Financial Group, supplies connecting software systems to more than 30 online movie-ticketing platforms including Tencent Holdings, Alipay, and Meituan. It also works with more than 1,000 theatres in China (Salvacion, 2015a). In addition, Alibaba launched a crowd-investing platform called Yulebao, where investors can pool funds to finance new film projects. In September 2015, Alibaba rolled out its Netflix-style subscription video service. Alibaba's TBO (Tmall Box Office), appeared after a software update in Alibaba's smart TV OS (Millward, 2015).

Alibaba has made large investments in the ecommerce and payments companies, Snapdeal and Paytm, in India.

Business model and financial data

With 255 million active buyers, Alibaba claims to be the largest online and mobile commerce company in the world by GMC.[17] It introduces itself as an unrivalled leader in mobile commerce: over 86% of total mobile retail GMV in China was completed on its marketplaces during the quarter ended in June 2014. Its mobile Taobao App has been the most popular mobile commerce app in China with mobile MAUs[18] every month since August 2012.

Total revenue increased by 52.1% from RMB 34,517 million in fiscal year 2013 to RMB 52,504 million (USD 8,463 million) in fiscal year 2014. The net income increased by 179.6% from RMB 4,448 million in the three months which ended 30 June 2013 to RMB 12,438 million (USD 2,005 million) in the same period in 2014. Alibaba is moving towards mobile: in August 2015, the company announced for the first time that its mobile revenues accounted for more than 50% of its total commerce revenues in China (Custer, 2015).

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[14] A business strategy that draws potential customers from online channels to physical stores.
[15] China is also one of the biggest contributors in the world market, as Chinese moviegoers spent over 30 billion yuan (USD 4.8 billion) at the film houses in 2014 (Benghozi et al: 48).
[16] The company helps brick-and-mortar movie theatres run operations, ticket management software for staffed booths and automatic vending machines, white label mobile apps for mobile ticket purchases, and even digital signage (Horwitz, 2015).
[17] By 2013 gross merchandise volume (GMV), quoting IDC.
[18] Monthly Active Users, a metric for the success of online social games and social networking services.

Alibaba - Consolidated results (2012-2014)

	Year ended March 31,				Three months ended June 30,		
	2012	2013	2014		2013	2014	
	RMB	RMB	RMB	US$	RMB	RMB	US$
			(in millions, except per share data)				
Revenue							
China commerce	15,637	29,167	45,132	7,275	9,193	13,348	2,152
International commerce	3,765	4,160	4,851	782	1,117	1,469	237
Cloud computing and Internet infrastructure	515	650	773	125	174	236	38
Others	108	540	1,748	281	294	718	115
Total	20,025	34,517	52,504	8,463	10,778	15,771	2,542
Cost of revenue	(6,554)	(9,719)	(13,369)	(2,155)	(2,727)	(4,585)	(739)
Product development expenses	(2,897)	(3,753)	(5,093)	(821)	(1,018)	(1,952)	(315)
Sales and marketing expenses	(3,058)	(3,613)	(4,545)	(733)	(713)	(1,212)	(195)
General and administrative expenses	(2,211)	(2,889)	(4,218)	(679)	(865)	(944)	(152)
Amortization of intangible assets	(155)	(130)	(315)	(51)	(35)	(234)	(38)
Impairment of goodwill and intangible assets	(135)	(175)	(44)	(7)	—	—	—
Yahoo TIPLA amendment payment	—	(3,487)	—	—	—	—	—
Income from operations	5,015	10,751	24,920	4,017	5,420	6,844	1,103
Interest and investment income, net	258	39	1,648	266	466	6,828	1,100
Interest expense	(68)	(1,572)	(2,195)	(354)	(1,081)	(410)	(66)
Other income, net	327	894	2,429	391	241	711	115
Income before income tax and share of results of equity investees	5,532	10,112	26,802	4,320	5,046	13,973	2,252
Income tax expenses	(842)	(1,457)	(3,196)	(515)	(591)	(1,445)	(233)
Share of results of equity investees	(25)	(6)	(203)	(33)	(7)	(90)	(14)
Net income	4,665	8,649	23,403	3,772	4,448	12,438	2,005
Net income attributable to noncontrolling interests	(437)	(117)	(88)	(14)	(4)	(34)	(6)
Net income attributable to Alibaba Group Holding Limited	4,228	8,532	23,315	3,758	4,444	12,404	1,999
Accretion of convertible preference shares	—	(17)	(31)	(5)	(8)	(8)	(1)
Dividends accrued on convertible preference shares	—	(111)	(208)	(33)	(52)	(52)	(8)
Net income attributable to ordinary shareholders	4,228	8,404	23,076	3,720	4,384	12,344	1,990
Earnings per share attributable to ordinary shareholders							
Basic	1.71	3.66	10.61	1.71	2.02	5.62	0.91
Diluted	1.67	3.57	10.00	1.61	1.93	5.20	0.84

Source: SEC Filing (2014: 119).

Revenues are primarily generated from merchants through online marketing services (via Alimama), commissions on transactions and fees for online services. Revenues are also generated through fees from memberships, value-added services and cloud computing services. GMV generated on the China retail marketplaces increased by 55.8% from RMB 1,077 billion in fiscal year 2013 to RMB 1,678 billion (USD 270 billion) in fiscal year 2014.

As of 31 March 2012, 2013 and 2014, the company had a total of 21,930, 20,674 and 22,072 full-time employees, respectively. Most of its employees are based in China. For instance, as of 30 June 2014, Alibaba employed a field sales force of 3,488 people in 76 cities across mainland China, in Hong Kong and one city in Taiwan. These sales personnel are engaged in selling membership packages to sellers who want to establish storefronts on this marketplace.

The table above does not show any indication of R&D expenditures, only "product and development expenses" for a bit less than 10% of its 2014 revenues. However, under "technology", the company reports employing 8,000 engineering and data analysis personnel as of March 2014 (SEC Filing: 210).

Alibaba Group Holding Limited is a Cayman Islands holding company established on 28 June 1999. Its business is conducted in China through subsidiaries and variable interest entities, across approximately 290 subsidiaries and other consolidated entities. As of April 2015, its market cap reached USD 204 billion (http://quotes.wsj.com/BABA).

The way the group has been financing its growth is not publicly available and difficult to reconstruct. However, its relationships with SoftBank (Japan) and Yahoo (US) shed some light on the issue.

Alibaba - the relationships with SoftBank and Yahoo.

In 2000, a group of investors led by SoftBank invested USD 20 million in Alibaba. In 2003, a joint venture was established with SoftBank for the development of the predecessor entity of Taobao Marketplace. Through a series of investments totalling USD 50 million, SoftBank subscribed for shares in the Taobao predecessor entity.

In 2005, Yahoo completed a strategic investment which resulted in Yahoo owning approximately 40% of the company. Yahoo invested a total of USD 1 billion in cash and contributed Yahoo China to the Alibaba Group. Specifically, Yahoo purchased ordinary shares and a portion of SoftBank shares.

In 2012, to pave the way for an IPO of the Alibaba Group, Alibaba entered into a share repurchase agreement with Yahoo in order to repurchase 523 million shares from Yahoo for USD 7,082 million. The "TIPLA"[19] agreement with Yahoo was restructured for a lump sum payment to Yahoo of USD 550 million. In connection with Yahoo's proposed staged exit from its investment in Alibaba, the two companies added an amendment to the Yahoo TIPLA which gave Alibaba a transitional license to continue to operate Yahoo! China under the Yahoo brand for up to four years.

On 24 September 2014, Alibaba Group Holding Limited ("Alibaba Group") closed its initial public offering ("IPO") of American Depositary Shares ("ADSs"). Each Alibaba Group ADS represented one ordinary share of Alibaba Group. Yahoo! Hong Kong Holdings Limited ("YHK"), a wholly owned subsidiary of the Company, sold 140,000,000 Alibaba Group ADSs in the IPO at an initial public offering price of USD 68.00 per ADS. Yahoo received USD 9.4 billion (net of underwriting discounts, commissions, and fees of approximately USD 115 million) in cash for the 140 million Alibaba Group ADSs sold. Following completion of the sale in the IPO, Yahoo retained some 383 million ordinary shares in the Alibaba Group, representing approximately 15% of the Alibaba Group's outstanding ordinary shares. As a result of the IPO, the TIPLA terminated on 18 September 2015. with remaining TIPLA deferred revenue of USD 268 million being recognized. Alibaba Group's obligation to make royalty payments under the TIPLA ceased on 24 September 2014.

The company was introduced onto the US stock market (initial public offering, IPO) in September 2014, raising USD 25 billion in the world's largest-ever IPO to date.

Founders

Jack Yun Ma, Executive Chairman since 2013, is the lead founder. From 1999 and until May 2013, J. Y. Ma served as Chairman and Chief Executive Officer. He currently serves on the board of SoftBank Corp., one of the major shareholders. He is also a Director of Huayi Brothers Media Corporation, an entertainment group in China listed on The Shenzhen Stock Exchange, and Chair of The Nature Conservancy's China Board of Directors and a Director of its global Board of Directors. In September 2013, he joined the Breakthrough Prize in the Life Sciences Foundation as a Director. J. Ma graduated from Hangzhou Teacher's Institute with a major in English language education. Jack Ma Yun, founder, Executive Chairman and CEO of Alibaba Group, has total net assets of USD 22.7 billion [20] and was listed as the fourth wealthiest Chinese in the world (Salvacion, 2015b)[21]. J. Ma runs a personal VC fund, Yunfeng Capital.

Joseph C. Tsai joined the company in 1999 as a member of the Alibaba founding team and has served as Executive Vice-Chairman since May 2013. J. Tsai previously served as Chief Financial Officer and has been a member of the Board of Directors since the company was formed. From 1995 to 1999, J. Tsai worked in Hong Kong with Investor AB, the main investment vehicle of Sweden's Wallenberg family, where he was

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[19] Technology and Intellectual License Agreement.
[20] Forbes China (19 April 2015).
[21] Pony Ma Huateng of Tencent ranked eighth.

responsible for Asian private equity investments. Prior to that, he was Vice President and General Counsel of Rosecliff, Inc., a management buyout firm based in New York. From 1990 to 1993, J. Tsai was an associate attorney in the tax group of Sullivan & Cromwell LLP, a New York-based international law firm. J. Tsai is qualified to practice law in the State of New York. He received his bachelor's degree in Economics and East Asian Studies from Yale College and a juris doctor degree from Yale Law School.

Source: Internet sites, Alibaba, annual report sec filing 2014, FORM 424B4 Alibaba Group Holding Ltd - N/A Filed: September 22, 2014: http://www.sec.gov/Archives/edgar/data/1577552/000119312514322604/d709111df1a.htm

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# Amazon (US, 1994) - The strength of the ecosystem

A brief corporate history

Amazon was founded in Seattle in 1994, by Jeff Bezos (CEO), using the first 'Mosaic' web browser and its descendants such as Netscape. When Amazon.com opened its virtual doors on the World Wide Web in July 1995, J. Bezos made it clear: *«We seek to be Earth's most customer-centric company"* (Annual Report 2014: 3). Its website states the company is "*guided by four principles: customer obsession rather than competitor focus, passion for invention, commitment to operational excellence, and long-term thinking*".

Amazon is one of the fastest growing businesses in the Internet's history (Simon, 2015, Distinguin, 2013, Blackman and Forge, 2012). As of December 2013, it employed 117 300 full-time and part-time employees.

Amazon - The fastest growing business in the Internet's history
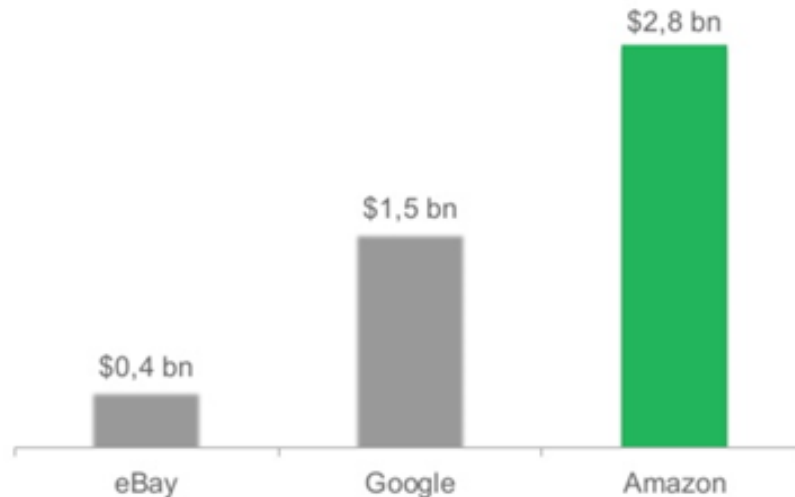
Source: Distinguin (2013).

As emphasized by Forge and Blackman (2012), Amazon, despite its apparently virtual presence in cyberspace, is very much a hardware company, which needs large amounts of capital investment for the two key business processes:

- Its sales interfaces, which rely on some of the world's largest data centres with intensive use of computer hardware and storage. These centres run its order-taking, statistics, sales, cataloguing and customer profiling engines and are based on cloud–computing.
- Logistics chains of dispatch centres for warehousing and ground transport, with a host of delivery services partners.

Amazon operates globally through ten online marketplaces (websites) (see figure below): two in North America (Canada and USA), five in Europe (France, Germany, Italy, Spain, and the UK), three in Asia (China, India, and Japan). Amazon does not operate in Africa, or in Latin America.

Amazon global marketplaces

Source: http://services.amazon.com/global-selling/international-marketplaces.htm

The business model

Amazon started selling books as a way of gathering data on affluent, educated shoppers. The books would be priced close to cost, in order to increase sales volume. After collecting data on millions of customers, Amazon was able to figure out how to sell everything else at bargain prices on the Internet. Books were the way to get the names and the data and the sale of books was the customer-acquisition strategy. In 2013, book sales in the U.S. made up no more than 7% of the company's roughly USD 75 billion in annual revenue. In 2014, media revenues kept on decreasing (in relative terms) and accounted for only 25% of the total sales reaching USD 88,988 billion (Annual Report 2014: 26).

The company operates on very tight margins, and alternates losses (net income) of USD 241 million in 2014, 39 million in 2012, with small profit of USD 274 million in 2013. The losses came from international sales: segment operating income of −297 million USD out of 33.5 billion USD in 2014. The North American market looks profitable: segment operating income of 2.1 billion out of 55,5 billion of net sales (Annual Report, 2014:69).

Amazon - Net sales by regions and types of products (USD Million, 2012-2014)

		Year Ended December 31,				
		2014		**2013**		**2012**
Net Sales:						
North America						
Media	$	11,567	$	10,809	$	9,189
Electronics and other general merchandise		38,517		29,985		23,273
Other (1)		5,385		3,723		2,351
Total North America	$	55,469	$	44,517	$	34,813
International						
Media	$	10,938	$	10,907	$	10,753
Electronics and other general merchandise		22,369		18,817		15,355
Other (1)		212		211		172
Total International	$	33,519	$	29,935	$	26,280
Consolidated						
Media	$	22,505	$	21,716	$	19,942
Electronics and other general merchandise		60,886		48,802		38,628
Other (1)		5,597		3,934		2,523
Total consolidated	$	88,988	$	74,452	$	61,093
Year-over-year Percentage Growth:						
North America						
Media		7%		18%		15%
Electronics and other general merchandise		28		29		34
Other		45		58		64
Total North America		25		28		30
International						
Media		—%		1%		9%
Electronics and other general merchandise		19		23		35
Other		1		22		11
Total International		12		14		23
Consolidated						
Media		4%		9%		12%
Electronics and other general merchandise		25		26		35
Other		42		56		59
Total consolidated		20		22		27

Source: Annual Report (2014: 26).

Amazon - Media sales (2014).

Source: Garrahan and Bond (2015).

A customer-centric approach

Consumers are served through websites designed to enable millions of unique products to be sold by the company and by third parties across dozens of product categories. Customers access the websites directly and through mobile websites and apps. Amazon manufactures and sells electronic devices. Amazon Prime is an annual membership programme that includes unlimited free shipping on millions of items, access to unlimited instant streaming of thousands of movies and TV episodes, and access to hundreds of thousands of books to borrow and read for free on a Kindle device.

Customer orders are fulfilled in a number of ways: through the North America and International fulfilment centres and warehouses that the company operates, through co-sourced and outsourced arrangements in certain countries, and through digital delivery. Customer service centres are operated globally, and supplemented by co-sourced arrangements.

Dealing with third parties and providing business services

Amazon's programmes enable sellers to sell their products on Amazon's websites and on their own branded websites and to fulfil orders through Amazon. Amazon earns fixed fees, revenue share fees, per-unit activity fees, or some combination thereof.

Amazon serves developers and enterprises of all sizes through Amazon Web Services ("AWS"), launched in 2006, which provides technology infrastructure services that enable virtually any type of business. This is a fast growing segment of revenues as can be seen in the first figure in this section, under "other", that includes sales from non-retail activities such as AWS sales. AWS has more than a million active customers as companies and organizations of all sizes use AWS: usage grew by approximately 90% in the fourth quarter of 2014 versus the prior year. Companies like Pinterest, Dropbox, Airbnb all used AWS services.

Amazon provides specific services to what they call "Content Creators" (Annual Reports) i.e. authors and independent publishers with Kindle Direct Publishing, an online platform that lets independent authors and publishers choose a 70% royalty option and make their books available in the Kindle Store, along with Amazon's own publishing arm, Amazon Publishing. Programmes are offered that allow authors, musicians, filmmakers, app developers, and others to publish and sell content.

A business of disrupting legacy intermediaries

As stressed by Walter Piecyk, an analyst with BTIG Research. "*The traditional Amazon business model is taking an existing legacy business and grinding distribution models and disrupting them,*" (quoted by Garrahan and Bond, 2015).

The key building blocks of Amazon's success are their ability to use data and an eye for the right innovations and patents. When Amazon was primarily a book retailer, the company was the first to extensively use algorithms so that it could provide recommendations for customers: "Customers who bought this item, also bought this one…".The customer review section is one long-term feature, that has helped Amazon to understand its customers and so become the largest Internet retailer in the world. Using its data mining and profiling tools, the giant from Seattle tries to detect market trends early and then translates those trends and needs into new products and services.

On the distribution side, Amazon created new ways of buying and distributing books and went further with the introduction of its Kindle e-reader (De Prato and Simon, 2012: 13, Benghozi and Salvador, 2013: 22), a far cry from just shipping books from a warehouse in Seattle (Forge et al, 2013: 60). The introduction of its own device, the Kindle reader, seemed a logical way to organize and structure its ecosystem. Amazon introduced its Kindle e-reader which deals directly with customers, thus making the best out of the sophisticated ecosystem (recommendations, tools for self-publishing, on demand

publishing, 14 imprints[22] under the flagship of Amazon Publishing, a leading community of readers, Goodreads…) it has built up since 2007.

The giant from Seattle is now trying to duplicate this successful experience around a new ecosystem for audio-visual contents based on its new device Fire, launched in 2014. Amazon has introduced its Android-based smartphone[23] Fire, which can send TV shows and movies to Fire TV devices (the TV service of Amazon[24]), thereby giving mobile access to the company ecosystem with more than "*33 million songs, apps, games, movies, TV shows and books*" (Ferguson, 2014a). Amazon Fire TV offers over 1,600 titles, 600 channels and has the fastest growing selection of any streaming media device according to the company.

Amazon is moving into the production of contents (Simon, 2015) first with book production, and more recently with audio-visual, unsurprisingly using a data-based approach. Amazon Publishing, the full-service publishing arm of Amazon, is now composed of 14 imprints. AmazonEncore imprint launched in May 2009 is interesting as this is the programme which Amazon will use for information such as customer reviews on Amazon.com to identify exceptional, overlooked books and authors with more potential than their sales might indicate. By producing its own original work, Amazon can sell more devices and sign up more Prime members, a major source of revenue.

Amazon Studios is an Amazon.com division, created in 2010, which develops comics, movies and television shows from online submissions and crowd-sourced feedback. Its strength lies in data collection, an unusual way of producing television series that Netflix pioneered not so long ago. Amazon invited writers to submit scripts on its website, described as "*an open platform for content creators*." Amazon then put the pilots on its site, where customers could review them and answer a detailed questionnaire. ("*Please rate the following aspects of this show: The humour, the characters . . .")* More than a million customers watched. Amazon Studios received more than 10,000 feature screenplay submissions as of September 2012, and 2,700 television pilots as of March 2013.

Financial data

The Company's principal corporate offices are located in Seattle, Washington. In its first funding (July, 1995), Amazon collected USD 8 million from Kleiner Perkins Caufield & Byers. Amazon.com completed its initial public offering in May 1997, collecting USD 54 million, and its common stock is listed on the Nasdaq. In May 2015, its market cap reached USD 198.28 billion, and its total assets were worth USD 54.5 billion.

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[22] AmazonEncore (Rediscovered Works), AmazonCrossing (Translated Works), Thomas & Mercer (Mystery, Thrillers, and Suspense), Montlake Romance (Romance), 47North (Science Fiction, Fantasy, and Horror), Little A (Literary Fiction), Skyscape (Teen and Young Adult), Two Lions (Children's Picture Books, Chapter Books, and Novels), Jet City Comics (Comics and Graphic Novels), Lake Union Publishing (Contemporary and Historical Fiction, Memoir and Popular Nonfiction), StoryFront (Short Fiction), Grand Harbor Press (Personal Growth and Self-Help), Waterfall Press (Christian Nonfiction and Fiction), Amazon Publishing (Nonfiction, Memoirs, and General Fiction).

[23] Fire runs a 2.2GHz quad-core Qualcomm processor, has a 4.7-inch screen, a 13 megapixel rear-facing camera and 2.1 megapixel front-facing sensor, and supports nine LTE bands. It is available with 32GB or 64GB of storage and uses Amazon's latest forked version of Android, Fire OS 3.5.0. Fire, features a display which shows three-dimensional images that responds to movement, along with image, text and audio recognition. A dedicated processor and real-time computer vision algorithm then adjusts the image accordingly. The technology allows apps and games to be more immersive.

[24] The Amazon Fire TV box allows users to download and use app and games — as well as stream movies, television and music — to their HD TVs via their mobile device. *Source*: Ferguson, 2014b.

Amazon - Evolution of the price of the shares (2011-2015)

Amazon

Share price ($)

Source: Thomson Reuters Datastream

In the 2014 dispute between Amazon and Hachette, Amazon was able to clearly demonstrate, not for the first time, how powerful an industry player it has become. Obviously, its dominance triggered hard criticisms - for example, its prohibitively low prices warded off competition. Nobel Prize-winning economist Paul Krugman stated in a NYT column that: "*Amazon.com, the giant online retailer, has too much power, and it uses that power in ways that hurt America*." He charged the company with being and acting as a monopsony.

Founders

Like Google, the company has never declared or paid cash dividends on its common stock, as it retains all future earnings to finance future growth. From a financial viewpoint J. Bezos's "*customer-first, profits-later strategy*" has raised some criticism from investors as can be illustrated by shares tumbling by more than a third in the period 2013-2014 (see figure below).

Jeff Bezos, who graduated from Princeton came from a NY hedge fund background, D. E. Shaw & Co. He has also owned a major newspaper, the *Washington Post,* since 2013 (personal investment).

Key words: disrupting legacy business, customer centric, big data, sophisticated ecosystem.

Source: http://www.amazon.com

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Apple (US, 1976) - Game changer's zigzags

A brief corporate history

Apple was founded by Steven Paul Jobs, Steve Wozniak, and Ronald Gerald Wayne on 1 April 1976, and is headquartered in Cupertino, California. Jobs and Wozniak founded Apple Computers in the Jobs family garage. The first personal computer was sold for USD 666.66. By 1980, Apple had already released three improved versions of that first one.

Introduced in 1984, the Macintosh was the first widely sold personal computer with a graphical user interface (GUI). That feature and others such as an improved floppy drive design and a low-cost hard drive that made data retrieval faster helped Apple cultivate a reputation for innovation.

Apple now designs, manufactures, and markets mobile communication and media devices, personal computers, and portable digital music players, and sells a variety of related software, services, accessories, networking solutions, and third-party digital content and applications (see box on the next page). The Company also sells and delivers digital content and applications through the iTunes Store, App Store, iBooks Store and Mac App Store. The Company sells its products worldwide through its retail stores, online stores and direct sales force, as well as through third-party cellular network carriers, wholesalers, retailers and value-added resellers.

The company has been highly innovative, acting as a game changer, having invented the PC and introduced the smartphone. However, the story of Apple is not entirely straightforward as the company has been through some historical ups and downs. The company declined after 1991, after S. Jobs resigned in 1986, and until he came back in 1997. West and Mace (2007: 6) describe the 1987-1997 period as "The Lost Decade": after the 1987 introduction of the Macintosh II, the first Macintosh with colour graphics and internal expansion cards, Apple's rate of innovation slowed to eventual stagnation.

Then in 2007, it returned to profitability, and became highly successful with mobile devices. Apple's iPhone represented Apple's fourth industry entry after personal computers (1977), PDAs (1993) and portable music players (2001). Having started as the inventor of the PC, Apple became the world's second-largest information technology company by revenue after Samsung Electronics, and the world's third-largest mobile phone maker.

Apple's portfolio

> The Company's products and services include iPhone, iPad, Mac, iPod, Apple TV, a portfolio of consumer and professional software applications, the iOS and OS X operating systems, iCloud, and a variety of accessory, service and support offerings.
>
> In September 2014, the Company announced the Apple Watch, available since 2015, and Apple Pay™, which became available in the US in October 2014.
>
> In addition, the Company sells a variety of third-party iPhone, iPad, Mac and iPod compatible products, including application software, and various accessories, through its online and retail stores.
>
> The Company sells to consumers, small and medium-sized businesses ("SMB") and education, enterprise and government customers.
>
> *Source*: Annual Report (2014:1).

In 2015, deeming the current digital music landscape as "a fragmented mess," with a multitude of different sources available to stream music, view video, and access artist information, Apple introduced its Apple Music, as "one complete thought around music", with three components: a streaming music service with curated playlists, a "worldwide, 24/7 radio station" called Beats 1, and Connect, a social service enabling artists and users to connect directly (Costello, 2015). All are accessed via a single app. The service costs USD 9.99 per month. A USD 14.99 version is also available which supports up to six family members, the first three months free-of-charge. Apple Music was launched on June 30th in more than 100 countries with iOS 8.4 for iPhone, iPad and iPod Touch. It is available for Mac users via an update to the iTunes application.

Financial data

As of 2014, with revenues of nearly US$ 183 billion, Apple is a very profitable company with USD 39.5 billion of net income (over 20% of total revenues). Net sales rose 7% or USD 11.9 billion during 2014 compared to 2013. The sales of the iPhone provide the bulk of the revenues nearly 102 billion USD leaving 24 billion to the Mac. Mobility devices are dominant: 134.56 billion US$.

As of 27 September 2014, the Company had approximately 92,600 full-time equivalent employees and an additional 4,400 full-time equivalent temporary employees and contractors. Apple invested USD 4.825 billion in R&D in 2014. Approximately 46,200 of the total full-time equivalent employees worked in the company's retail segment.

Apple went public on 19 December 1980. During 2014, the Company utilized USD 45 billion to repurchase its common stock and paid dividends and dividend equivalents of USD 11.1 billion.

As of June 2015 its market cap was of USD 737.54 billion, its total assets for 2014, amounted to USD 231.8 billion. In 2015, Apple was the largest publicly-traded corporation in the world by market capitalization. As stressed by Picardo (2014): a company with a USD 500 billion market cap would be equal to the size of Norway (ranking No. 23 in terms of 2012 GDP) and would be larger than economies like Poland, Belgium, Argentina, Austria and South Africa.

Apple net sales by operating segment and net sales and unit sales by product during 2014, 2013 and 2012 (dollars in millions and units in thousands)

	2014	Change	2013	Change	2012
Net Sales by Operating Segment:					
Americas	$ 65,232	4%	$ 62,739	9%	$ 57,512
Europe	40,929	8%	37,883	4%	36,323
Greater China	29,846	17%	25,417	13%	22,533
Japan	14,982	11%	13,462	27%	10,571
Rest of Asia Pacific	10,344	(7)%	11,181	4%	10,741
Retail	21,462	6%	20,228	7%	18,828
Total net sales	$ 182,795	7%	$ 170,910	9%	$ 156,508
Net Sales by Product:					
iPhone [1]	$ 101,991	12%	$ 91,279	16%	$ 78,692
iPad [1]	30,283	(5)%	31,980	3%	30,945
Mac [1]	24,079	12%	21,483	(7)%	23,221
iPod [1]	2,286	(48)%	4,411	(21)%	5,615
iTunes, Software and Services [2]	18,063	13%	16,051	25%	12,890
Accessories [3]	6,093	7%	5,706	11%	5,145
Total net sales	$ 182,795	7%	$ 170,910	9%	$ 156,508

Source: Annual Report (2014:27).

Founders

Steve Jobs graduated from Homestead High School in Cupertino, California and enrolled in Reed College in Portland, Oregon. One semester later, he dropped out, later taking up the study of philosophy and foreign cultures. Steve Jobs had a deep interest in technology, so he took up a job at Atari Inc, then a leading manufacturer of video games. He struck up a friendship with fellow designer Steve Wozniak They sold items like scientific calculators to raise seed capital.

After leaving Apple, Steve Jobs decided that he wanted to change the hardware industry with a company called NeXTStep, which produced the NeXT Computer. The machine it made was a commercial washout but helped with future work in object-oriented programming, PostScript, and magneto-optical devices. Jobs returned to Apple after it acquired NeXT in 1996. Steve Jobs also started Pixar, which has produced multiple blockbuster films.

Steve Wozniak, after founding the company, went back, in 1981, to UC Berkeley and finished his degree in electrical engineering/computer science.

Ronald Wayne, an engineer by training, worked with Steve Jobs at Atari. He described himself as a well-qualified inventor, holding nearly a dozen US patents covering a range of fundamental concepts. He sold his shares shortly after the foundation…for fear the company could go bankrupted!

Key words: apps, app store, smartphones, global innovation network.

Source: http://www.apple.com

Annual Report 2014

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Baidu (百度)[25] (China, 2000): The Google of China

A brief corporate history

Baidu was founded in 2000 in Beijing by Robin Li (Li Yanhong), Chairman, and Eric Xu (Xu Yong), CEO. Baidu is a Chinese internet technology company that is known primarily for its search engine. It is often called "the Google of China" (Custer, 2015). Baidu is a Chinese website and search engine. Its mission is to provide 'people with the best way to find information and connect users with services' (company website). The company was formerly known as Baidu.com, Inc. and changed its name to Baidu, Inc. in December 2008, the holding company is incorporated in the Cayman Islands.

Baidu was created as a search engine that made use of technology Li had developed and patented several years before in a previous job. The early site was aesthetically inspired by Google's simplicity, and it launched with few features. By 2003, the site had expanded to offer image and news search, and as time went on the company expanded further and further into other internet sectors, although its primary focus has remained search and advertising.

China, is the country with the world's largest number of internet users: there were 642 million in 2014, which represents nearly 22% of world's total. Baidu.com is the largest Chinese website and the fifth largest website globally. It began its days purely as a search engine but now is involved in a range of activities from web advertising to cloud computing.

The company claims that its success comes from its deep understanding of Chinese language and culture, which allows the company to tailor its search technology to its users' needs. The company quotes an example: "*we believe there are at least 38 ways of saying "I" in the Chinese language. It is important that we recognize these nuances to effectively address our users' requests*".

Baidu has been China's most popular search engine—by quite a large margin—for most of the past decade, although in recent years its position has been eroded by rival software companies Qihoo 360, and Sogou, and its market share has dropped to 54%. Nevertheless, Baidu dominates the Chinese search market.

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[25] The name Baidu (百度) comes from a famous classical poem that describes the scene in ancient China during the lantern festival, a poem written more than 800 years ago during the Song Dynasty. The poem compares the search for a retreating beauty amid chaotic glamour with the search for one's dream while confronted by life's many obstacles. "…*hundreds and thousands of times, for her I searched in chaos, suddenly, I turned by chance, to where the lights were waning, and there she stood*." Baidu, whose literal meaning is "*hundreds of times*", represents a persistent search for the ideal.

Chinese Search Engine Landscape: distribution of market shares (August 2014)

Bing 0.95%
21cn 0.45%
Google 0.34%
Others 0.29%
Sogou 14.71%
360 29.24%
Baidu 54.03%
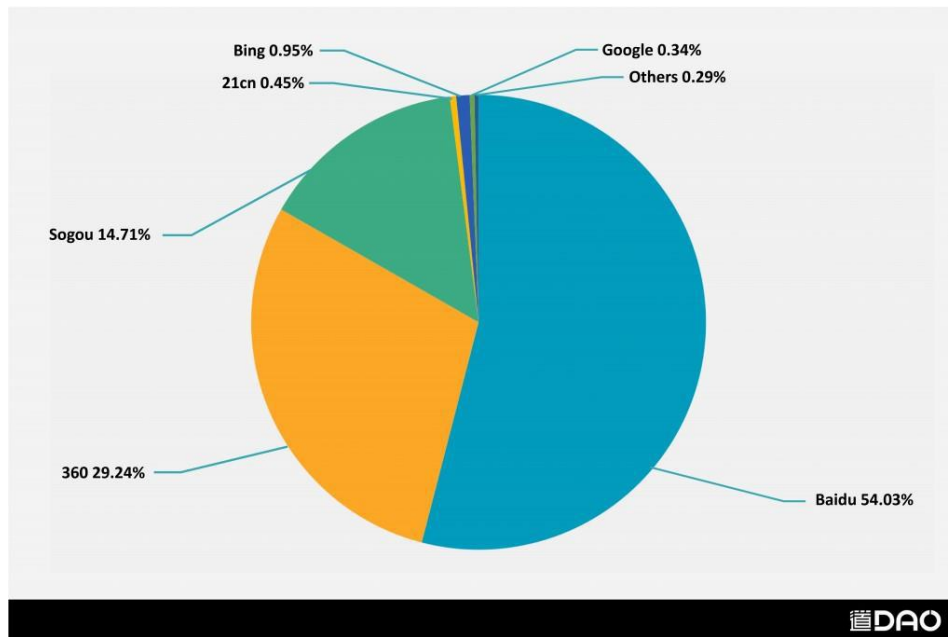
Source: Guan (2015).

Corporate structure

In addition to its core web search product, the company powers many popular community-based products, such as Baidu PostBar (the world's first and largest Chinese-language query-based searchable online community platform), Baidu Knows (the world's largest Chinese-language interactive knowledge-sharing platform), and Baidu Encyclopaedia (the world's largest user-generated Chinese-language encyclopaedia), to name but a few. Beyond these marquee products, Baidu also offers dozens of products, such as:

- Baidu Search: Baidu.com offers users the ability to quickly search the web for relevant web pages, news, images, music, and video.
- Baidu Ads: Baidu offers a comprehensive advertising platform similar to Google AdWords, placing ads mostly on its search result pages.
- "Box Computing": Baidu's search offers "box" responses for many search queries that give users the answers they're searching for directly, or even allow them to do interactive things like perform calculations or play games within the search results page.
- Baidu Maps: Baidu offers an interactive map and route-planning platform similar to Google maps that covers the entirety of China, and even includes maps of the interior of some locations (such as major malls, etc.).
- Baidu Cloud: A free cloud storage service that gives users a massive amount of storage space for free.
- Baidu Tieba: A BBS-style online forum service where users can open forums dedicated to particular topics and engage in discussion.
- Baidu Knows: A question-and-answer service similar to Quora or Yahoo Answers.
- Baidu Baike: A massive online encyclopaedia similar to Wikipedia (although it does not have the user editability that Wikipedia does).
- Baidu Anti-Virus: A free anti-virus software suite.
- Baidu Yi: An Android-based smartphone OS that has been sold pre-installed on Baidu-branded phones and that can also be freely downloaded and installed onto other Android mobile devices.

-   Baidu Tongji: A web analytics platform similar to Google Analytics.
-   Baidu Apps: Baidu offers a variety of mobile apps, including a relatively popular mobile assistant app, and the company also operates its own mobile app store.

Business model

Baidu has 81,300 active online marketing customers and 99% of its total revenues come from online marketing services, mostly from the pay-for-performance services (P4P). The company provides business-to-business services and serves as a media platform for online marketing customers. Its business model is mainly based on performance-based online marketing services offered to businesses and the display of advertisements through both Baidu and affiliated websites: Baidu Union members get a portion of the revenues according to a pre-arranged agreement. Its affiliated websites lead traffic to Baidu by integrating a Baidu search box into their sites and/or by displaying relevant contextual promotional links for customers. Customers pay on a cost per click basis – that is, customers only pay when their paid-link is clicked through.

Baidu has direct sales teams in first tier cities and third-party distributors in lower tier cities. This allows Baidu to better penetrate each market and tailor support and personal interaction based on customer needs. The online marketing platform serves hundreds of thousands of small- and medium-sized enterprises (SMEs) and many branded multinational customers. The measurable ROI offered by the online marketing platform has made it one of the most effective marketing platforms for companies targeting the Chinese market.

The company is expanding abroad and investing in a number of companies (31) (see the figure below).

Baidu - Corporate structure
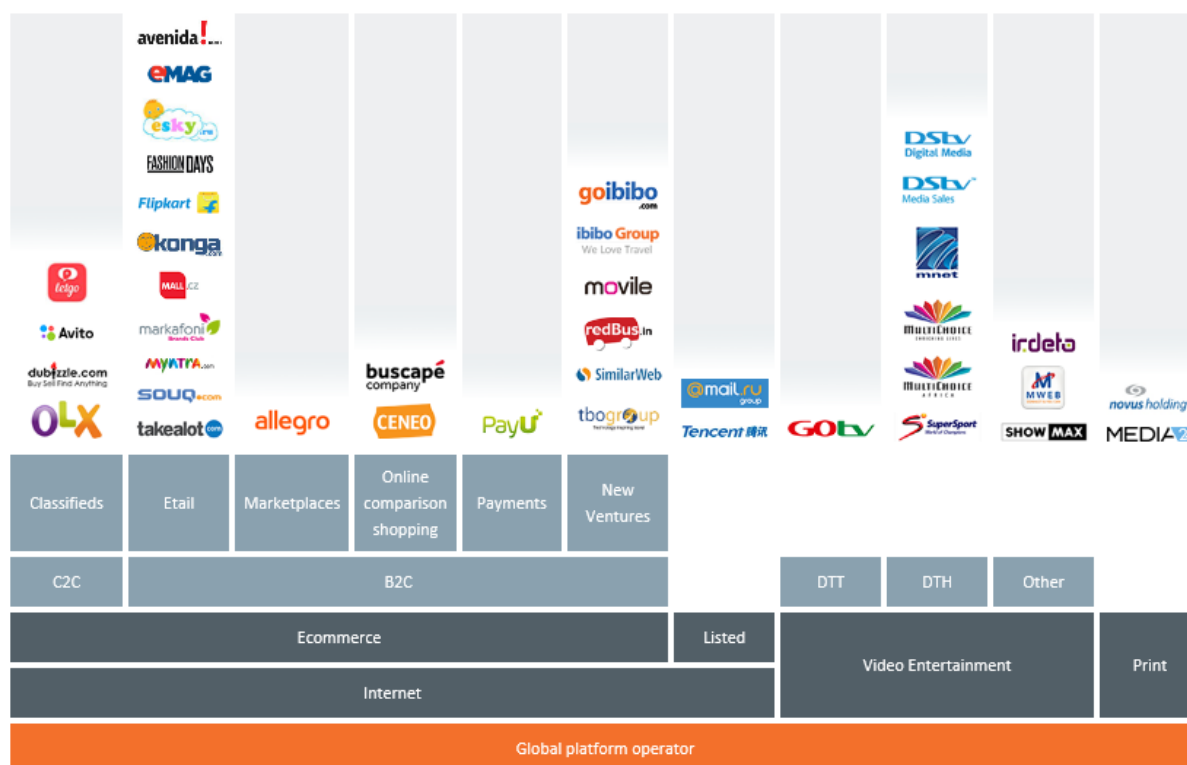
Source: Annual Report (2014:70).

Baidu developed a proprietary technological infrastructure for web search (link analysis, ranking, web crawling), mobile, P4P, "targetizement" and large-scale system. Baidu Research comprises three labs: the Silicon Valley Artificial Intelligence, the Beijing Deep

30

Learning Lab, and the Beijing Big Data Lab. The company spent USD 1.125 billion on R&D in 2014 (over 14% of its total revenues).

The subsidiary Baidu Japan, was established in December 2006, and the search service launched in January 2008. In September 2015, Baidu signed an agreement with Microsoft to become the default search engine on its new Windows 10 operating system in China, replacing Microsoft's search engine Bing.

Financial data

Since its inception in 2000, the company has raised USD 161.2 million in four funding rounds. The first founders (2000) were Integrity Partners, Peninsula Capital Fund, and later that same year Draper Fisher Jurvetson (DFJ) and IDG Capital Partners. In 2004, Venture TDF, Bridger Management, China Equity, Draper Fisher Jurvetson (DFJ), Google, and China Value came on board. The last round (2010) brought in Providence Equity Partners.

The company was listed in 2005 on the Nasdaq and raised USD 109 million. In 2015, Baidu had a market cap of USD 71.58 billion. Baidu has never declared or paid any dividends, and states on its web site that it does not "*have any present plan to pay any cash dividends on its ordinary shares in the foreseeable future*". The company stresses its intention "*to retain most, if not all, of our available funds and any future earnings to operate and expand our business*". Indeed the amount collected through funding rounds seems rather modest and the company relies heavily on self-funding.

In 2014 (Annual Report 2014: 3) the company had revenues of USD 7.905 billion (RMB 49 billion up from RMB 7.9 billion in 2010), out of which USD 7.816 billion come from the online marketing services they provide. Revenues generated on the Chinese market amounted to 99.5% in 2014. With an operating profit of over USD 2 billion in 2014 (26% of the revenues), the company seems highly profitable and seems to have been profitable for at least the last five years (Annual Report 2014: 3). As of 30 June 2014, Baidu had about 40,500 employees on a consolidated basis including invested entities.

Baidu - TV Documentary "A Journey to Silicon Valley"

Through many in-depth interviews with many seasoned Silicon Valley personnel, this TV series brings to light the history, start-up culture, business management and venture capital mechanisms of the Valley in an objective and comprehensive fashion, and reveals the mystery behind the success of Silicon Valley as the world model for high-tech undertakings and innovation.

Those seemingly simple cultural factors such as "people-centric", "tolerance of failure" "tolerance of differences", and "all-level communication" are the secrets to the success of Silicon Valley. Even after a decade, the elements of success, investment techniques and the genes of innovative culture revealed in the film still offer insights to newcomers to entrepreneurship.

Full movie: http://www.qiyi.com/jilupian/20110110/b2e7f687703f799f.html
Source: http://www.yifangventures.com/EN/EN_Entrepreneurship-2SiliconValley.html

Founders

Li Yanhong (Robin Li) graduated from Peking University, where he studied library information management. He was accepted to the State University of New York at Buffalo on a fellowship and got his master's in computer science in 1994. His first job in the United States was developing a software programme for the Wall Street Journal's online edition. In 1996, Li created a search method he termed "link analysis" (search technology Hyperlink Analysis) that ranked the popularity of websites according to how many other sites linked to it. His expertise led Silicon Valley search engine start-up,

Infoseek, to recruit him as the head of search engine development in 1997. Li stayed at Infoseek for two years.

Along with his friend, Eric Xu (Xu Yong), the two headed back to China to found Baidu in 2000. Li served as Chairman of the Board, while Xu, trained as a biochemist, served as Chief Executive Officer. Xu left in 2004, and is currently the founder and Chairman of YIFANG Group Holdings Limited, an investment holding company engaged in venture capital investments and asset management activities. Eric Xu Yong is also known for being the producer of the first Chinese TV documentary on Silicon Valley's unique history and culture in 1999 (see box below).

Key words: pay-for-performances services (P4P), proprietary technologies, targetizement search engine

Source: http://www.baidu.com/

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Cloudera (US, 2008): Next generation data management

A brief corporate history

Cloudera is an enterprise software company that provides Apache Hadoop-based software and training to data-driven enterprises. The company, headquartered in Palo Alto, was founded in 2008, by Amr Awadallah, Jeff Hammerbacher, Mike Olson, and Christophe Bisciglia. Cloudera, is the leading developer and distributor of Hadoop, the open source software that powers the data processing engines of the world's largest and most popular web sites. Cloudera is the first company formed to build solutions based on Hadoop, Doug Cutting, the co-creator of Hadoop, joined the company in 2009 as Chief Architect and remains in that role today.

Cloudera claims to be the leader in next generation data management. The company's enterprise data hub (EDH) software platform empowers organizations to store, process and analyze all enterprise data, of whatever type, in any volume, creating e-cost-efficiencies as well as enabling business transformation.

The company has the following revenue mix: subscription software (65%-70%), and non-recurring services revenue, professional services (15% -25%), and training (10% - 15%). The company runs Cloudera University to provide training to developers, administrators, and data analysts. Cloudera has trained more than 32000 people on Hadoop development, administration, and data science, and is leading the development of university curricula through the Cloudera Academic Partnership (CAP) program

A subscription software customer is defined as an enterprise or organization from which Cloudera earns annual recurring software revenue. It added 264 new software subscription customers in 2015 for a total customer count of 535 (unique accounts, not multiple deployments in a single account) at year's end. By comparison, Hortonworks claimed 332 unique customers as of 31 December 2014. It has 701 employees.

Cloudera topped USD 100 million in revenue in 2014, a significant milestone for any technology vendor. The company is losing money, the CEO Reilly, claims rather oddly: *«We are losing money more efficiently than our nearest competitor (Hortonworks)*."

Business model

Cloudera has global operation, operating in 20 countries, over 1,400 partners, around 800 of whom are systems integrators/professional services firms. This is in line with overall market dynamics, as over 70% of Big Data early adopters leverage consultants to support new deployments. Its high-end product, Enterprise Data Hub, is collecting a number of large customers.

According to Wikibon.org, security is the company's number one differentiator over competitors. The company spent much of 2015 doubling-down on security. Namely, the company worked closely with investor Intel to integrate data encryption into the chip-level, efforts it completed at the end of the year. Cloudera also made a security-related acquisition in 2015, picking up Texas-based Big Data security specialist Gazzang.

Still according to Wikibon (2015), Cloudera's goal, is to build a comprehensive "Big Data" data management platform (from storage to processing to analytics) built on an open source base (Apache Hadoop) monetized via value-add software and services and supported by partnerships in the data integration and applications layers.

Financial data

It took six years to reach the 1 billion threshold. The company raised USD 1.2 billion in 8 rounds from 18 Investors. The first investors were Caterina Fake, Youssri Helmy, Diane Greene, Qi Lu, Accel Partners (where one of the founders was working), Jeff Weiner. The next rounds brought: MSD Capital, Google Ventures, T. Rowe Price, Ignition Partners, Greylock Partners, Meritech Capital Partners, In-Q-Tel. In 2014, Intel bought 18% investing USD 740 million that raised the market cap to 4.1 billion.

Founders

Amr Awadallah was educated in Egypt (BS and MS EE degrees from Cairo University, Egypt, in 1992 and 1995) and then received his PhD in EE from Stanford University in 2007. Before co-founding Cloudera in 2008, was an Entrepreneur-in-Residence at Accel Partners. Prior to joining Accel, he served as Vice President of Product Intelligence Engineering at Yahoo!, and ran one of the very first organizations to use Hadoop for data analysis and business intelligence. Awadallah joined Yahoo after they acquired his first start-up, VivaSmart, in July of 2000

Mike Olson (Master's Degree in Computer Science from the University of California, Berkeley) was CEO of Sleepycat Software, makers of Berkeley DB, the open source embedded database engine. Mike spent two years at Oracle Corporation as vice president for Embedded Technologies after Oracle's acquisition of Sleepycat in 2006. Prior to joining Sleepycat, Olson held technical and business positions at database vendors Britton Lee, Illustra Information Technologies and Informix Software.

Christophe Bisciglia was most recently the founder of Prior, he was a senior engineer at Google where he founded and led Google's Academic Cloud Computing Initiative, which provides Google hosted computational resources to facilitate education and research to universities around the world.

Jeff Hammerbacher, was an Entrepreneur in Residence at Accel Partners immediately prior to joining Cloudera. Before he led the Data team at Facebook, a team produced two open source projects: Hive, a system for offline analysis built above Hadoop, and Cassandra, a structured storage system on a P2P network. Before joining Facebook, Jeff was a quantitative analyst on Wall Street. Hammerbacher earned his Bachelor's Degree in Mathematics from Harvard University.

Key words: big data, next generation data management proprietary technologies.

Source: http://www.cloudera.com/content/cloudera/en/home.html
https://www.crunchbase.com/organization/cloudera

http://premium.wikibon.com/cloudera-touts-growth-sharpens-focus-at-analyst-event/

http://www.reuters.com/article/2014/03/31/us-intel-cloudera-idUSBREA2U0ME20140331

# Criteo (France, 2005) - A sophisticated predictive engine

A brief corporate history

Criteo was founded by Jean-Baptiste Rudelle, Franck le Ouay and Romain Niccoli in 2005. Criteo SA provides web advertising services. The Company is a performance marketing technology company that offers clients a range of solutions such as click per cost, online banner displays, user optimization, data security, and search management tools to control campaign costs.

The Company serves more than 10000 e-commerce companies across over 50 countries globally: main clients include 3 Suisses, BonPrix, CDiscount, Expedia, Gmarket, Gumtree.com, Hankyu Kotsusha, Hokende, Hotels.com, La Redoute, Lenovo, Lotte, Macy's, NetShoes, Nissen, Orange, Rakuten, Recruit, Sarenza, Staples, Tiger Direct and Zalando.

Criteo - Corporate structure
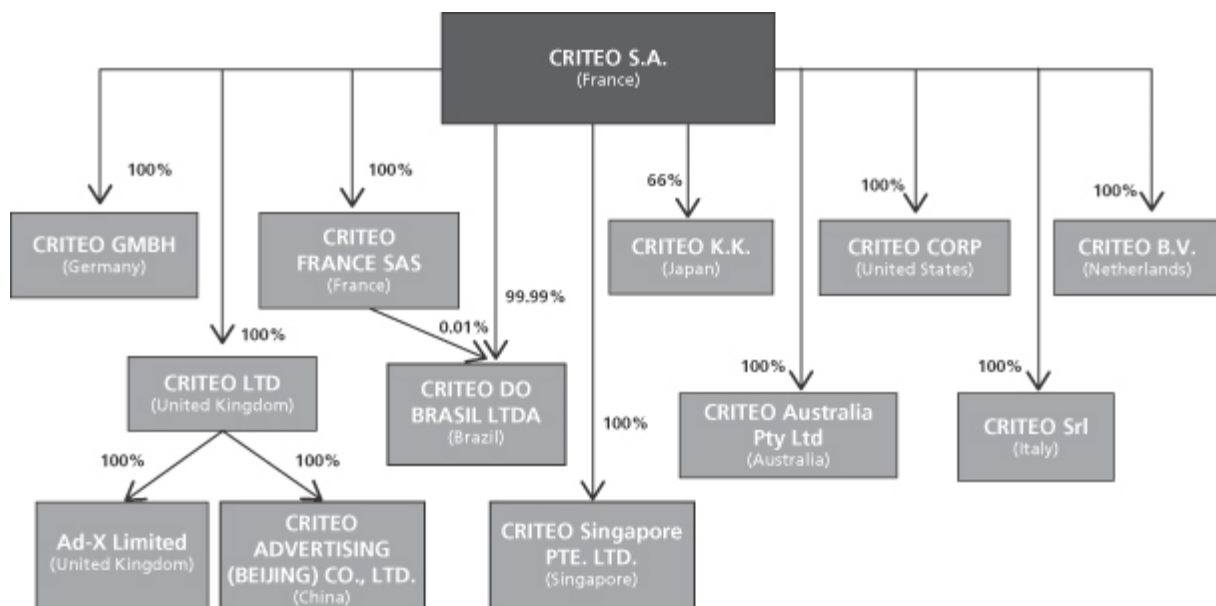
Source: Criteo, Nasdaq filing: 132.

The company analyzed USD 198 billion sales transactions in 2013, 430 billion in 2014, served 740 billion ads in 2014. 994 million internet users are reached monthly USD 12 billion in post-click sales in year ending 30 June 2014. The Company's products include CPOP Platform, Programmatic Buying, Facebook Exchange, Mobile and Ad-X tracking.

On 11 July 2013, Criteo, so as to accelerate its mobile strategy, acquired all of the shares of Ad-X Limited, or Ad-X, a mobile analytics and attribution technology company. Ad-X provides a solution for businesses to track and optimize mobile display advertising campaigns delivered to smartphones and tablets through mobile advertising networks and other marketing solutions. leverage Ad-X's complementary technology, personnel and client relationships. As of 30 June 2013, Ad-X had over 120 clients including eBay, Expedia and Priceline.com. Its AD-X Tracking provides a stand-alone solution for global

brands to utilize in-app events and downloads to optimize their mobile campaign performance across hundreds of mobile ad networks and other marketing solutions.

Criteo has over 1,000 employees in 27 offices across the Americas, Europe and Asia-Pacific, serving over 7,000 clients across over 50 countries, with direct relationships with more than 9,000 publishers (Tadena, 2015). In Asia, the company inked a strategic relationship with Yahoo! Japan Corporation, which gives privileged access to its advertising inventory for delivering personalized display advertisements. In 2014, Criteo added a record 600 new clients during the fourth quarter.

**The global distribution of offices**

Source: Criteo.

The business model

Criteo describes its activity as digital personalized performance advertising: it measures return on post-click sales. Criteo makes ROI transparent and easy to measure through the use of a cost-per-click model. The company helps advertisers generate more sales through personalized performance advertising at a global scale. Criteo enables companies to engage their customers online whether they are on a desktop, laptop, tablet or smartphone. Through its predictive algorithms, the company delivers performance-based online display advertising on real-time consumer data. Indeed, their cost-per-click model is supported by sophisticated predictive technology. The figure below also shows how it works as a multisided market.

Criteo engine: bridging publishers and advertisers
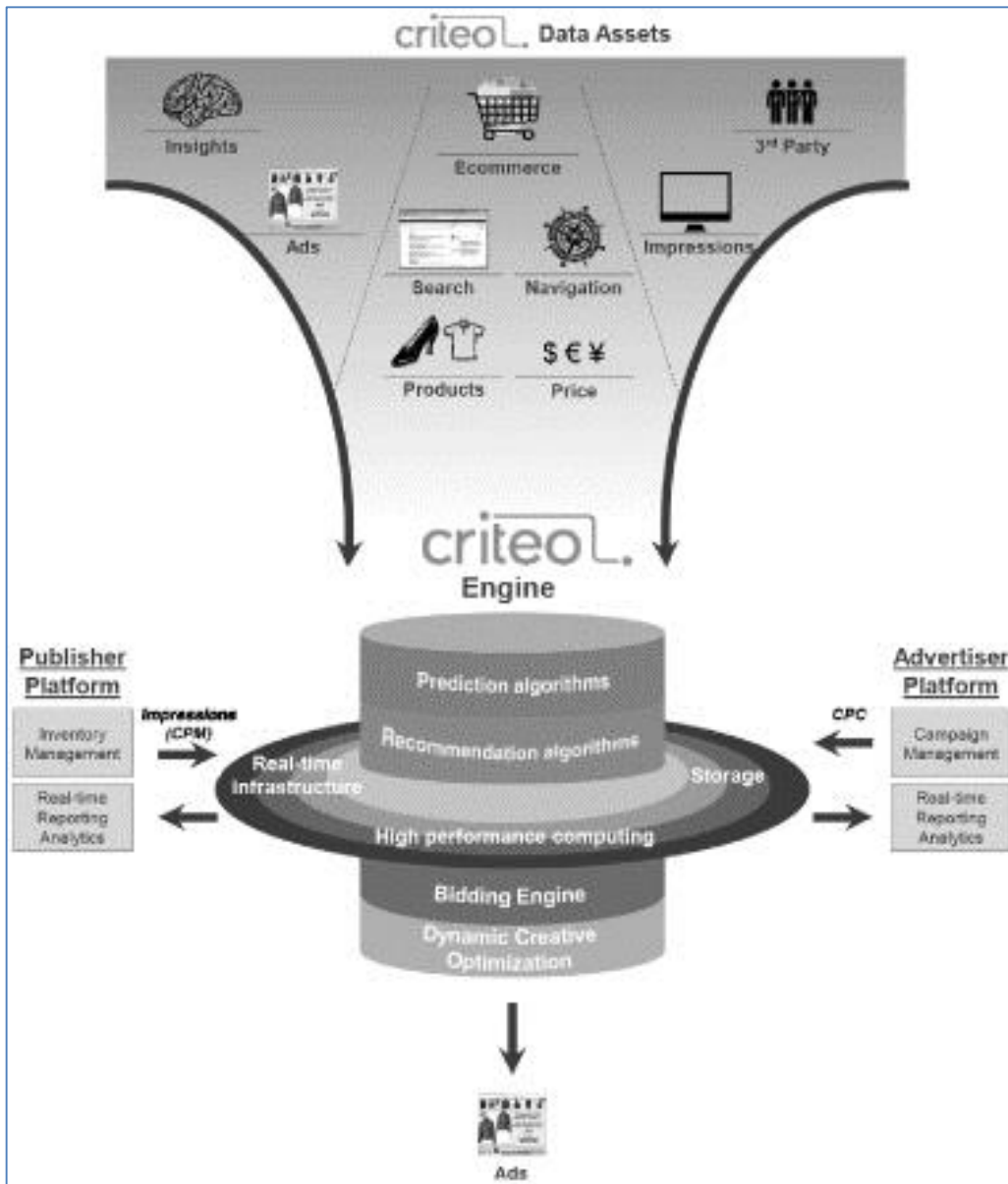
Source: Criteo, Nasdaq filing: 120.

The Criteo Engine has been developed over the past eight years (2005-2013) and consists of multiple machine learning algorithms—in particular, prediction and recommendation algorithms—and the proprietary global hardware and software infrastructure that enables to operate in real time and at significant scale. The accuracy of the prediction and recommendation algorithms improves with every advertisement delivered, as they incorporate new data, while continuing to learn from previous data. Criteo processes a vast amount of rich purchase-intent data in real-time to identify buyers and deliver dynamically-created ads which are personalized for each consumer, as well as from insights gained through its extensive operational history. Criteo analyses 230 terabytes of data daily (representing 2 petabytes of raw uncompressed data).

The company is often quoted by various observers dealing with innovation as an interesting case of "a highly specific French start-up (EIPE report Paris, Huffington Post 2013, Le Monde 2013). Criteo is presented as dealing with wed-based advertising (personalized retargeting), incubated in Paris, leader in the world. It shows now with R&D in Paris: a research center of 10.000 m², 200 software developers, USD 44,336

million of R&D expenditures[26] in 2013. it also develops R&D and marketing in Palo Alto to negotiate the contracts on a global level (offices opened after 3 years of operation in 2008). Criteo was deemed the fastest growing start-up in Europe.[27]

Financial data

Between 2006 and its floatation on the Nasdaq in 2013, the company raised around EUR 50 million. Until that floatation the company has been financially back by funds such as Index Ventures (24.3%), Idinvest Partners (22.6%), Elaia Partners (13.5%), and Bessemer Venture Partners (9.5%). The company was introduced on the Nasdaq in October 2013 and raised between USD 250 and 300 million.

In 2014, the world's third-largest advertising group Publicis was considering making a bid for Criteo which triggered a 18% increase of the shares and intensive trading of shares (nearly 2.4 million shares changed hands almost six times the 10-day average volume, making the stock one of the most traded on the Nasdaq).

With revenues of EUR 7 million in 2009, the company went up to EUR 272 million in 2012 (+89% over a year from EUR 143.6 million in 2011). It reached EUR 745 million in 2014, and nearly EUR 1.2 billion in 2015, up over 60%.

Profits were not that high : 2011: EUR 6.1 million, 2012: EUR 0.8 million in 2012, EUR 11.5 million in 2013, EUR 35 million in 2014, and EUR 56 million in 2015 but increasing steadily (Huffington Post, 2013, Criteo 2016). However, as of 2014, Criteo has a market capitalization of roughly USD 1.8 billion. It took 5 years to the company to reach the 1 billion market cap threshold.

Financial Information and Operating Metrics 2013-2015

	Q2 2013	Q3 2013	Q4 2013	Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	YoY Change	QoQ Change
Clients	4,274	4,631	5,072	5,567	6,131	6,581	7,190	7,832	8,564	9,290	10,198	42 %	10 %
Revenue	99,400	113,811	135,889	152,520	165,317	194,449	232,796	261,523	270,859	299,299	361,732	55 %	21 %
Americas	28,846	30,473	38,660	37,630	46,942	58,602	85,598	89,460	100,262	111,566	154,761	81 %	39 %
EMEA	53,348	59,732	70,291	83,853	84,187	93,885	104,480	117,532	114,824	123,445	132,268	27 %	7 %
APAC	17,206	23,606	26,937	31,037	34,187	41,962	42,718	54,531	55,773	64,288	74,703	75 %	16 %

Source: Criteo (2016)

Founders

The company introduces its founder and CEO, Jean-Baptiste Rudelle, as a serial entrepreneur with a combination of tech and business experience. In particular, he was the founder and CEO of K-Mobile Kiwee. Throughout the 2000s, this company rapidly became one of the leaders in the emerging mobile content market, before being acquired by American Greetings Interactive in 2004. Prior to that, he held various senior consulting positions for Roland Berger and Arthur D. Little. He started his career as an engineer for Philips and Lucent. He also founded The Galion Project, a non-profit think tank that helps other entrepreneurs to grow faster, and is a member of Daphni, an early-stage venture fund.

Romain Niccoli, CTO held several positions at Microsoft, Redmond, USA, including management and leadership of large teams of software engineers. Romain Niccoli holds a master's degree in Computer Science from Ecole des Mines de Paris, France.

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[26] Partially offset by the French research tax credit.
[27] By Deloitte Touche Tohmatsu Limited (DTTL) in Global Technology, Media & Telecommunications (TMT) industry group's 2011 Technology Fast 500TM EMEA (Europe, Middle East and Africa).

Franck Le Ouay started his career as a software engineer at Microsoft in Redmond, WA. He architected the graphics engine of popular console games and took part in the launch of the Microsoft Research Lab in Germany. Franck Le Ouay holds a master's degree in Maths from Ecole des Mines de Paris, France.

Eric Eichmann, was hired in 2013 as CRO and then promoted to President and COO, He became CEO in 2016. He holds a master's degree in Management from Kellogg Graduate School of Management and one in Computer Engineering from Swiss Federal Institute of Technology.

Key words: big data, prediction and recommendation algorithms, proprietary technologies sales transactions analysis.

Source: company website, sec filing, form 484B4, internet sources.

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http://www.bloomberg.com/quote/CRTO:US

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http://www.nasdaq.com/symbol/crto/financials?query=income-statement

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## Facebook (US, 2004) - The power to share

A brief corporate history

Facebook was founded by Mark Zuckerberg (CE0), Eduardo Saverin, Andrew McCollum, Dustin Moskovitz and Chris Hughes in 2004 in Menlo Park, California.

Facebook is an online social networking service that allows its users to connect with friends and family as well as make new connections. It provides its users with the ability to create a profile, update information, add images, send friend requests, and accept requests from other users. Its features include status update, photo tagging and sharing, and some more features.

Facebook describes its mission as: "*to give people the power to share and make the world more open and connected*". The company claims to be the world's largest social network with 1,441 billion monthly active users at the end of the first quarter of 2015 (see figure below). Mobile users now make up half of Facebook's user base with 1,248 billion monthly active users at the end of the first quarter of 2015 (see figure below). Facebook is one of the most trafficked sites in the United States. Additionally, Facebook is the top photo sharing site with 250 million photos uploaded per day.

Facebook - Daily Active Users[28] Worldwide (2010-2013) (in millions)
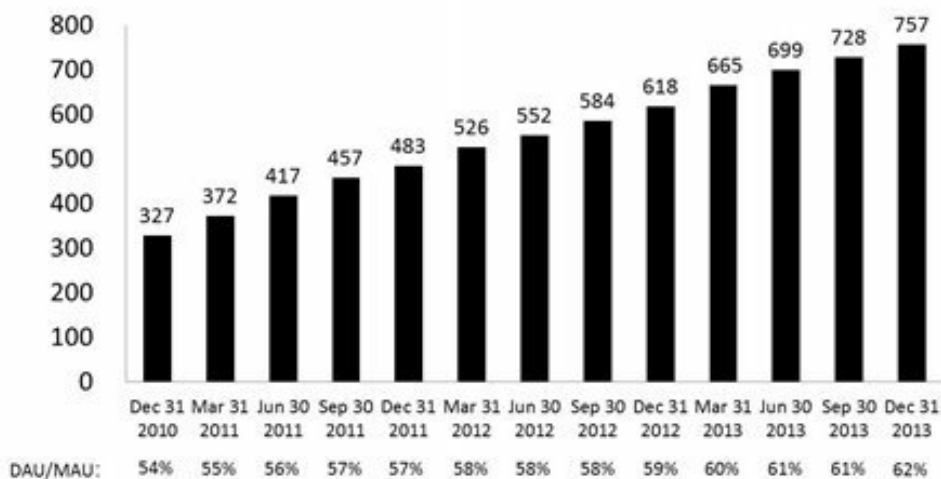
Source: Annual Report (2013: 37)

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[28] Daily average over the month ended. For these metrics DAU and MAU, the company explains that he numbers for these key metrics, which include daily active users (DAUs), mobile DAUs, monthly active users (MAUs), mobile MAUs, and average revenue per user (ARPU), as well as certain other metrics such as mobile-only DAUs and mobile-only MAUs, are calculated using internal company data based on the activity of user accounts. While these numbers are based on what the company believe to be reasonable estimates of its user base for the applicable period of measurement, there are inherent challenges in measuring usage of products across large online and mobile populations around the world.

Facebook - Mobile Active Users Worldwide
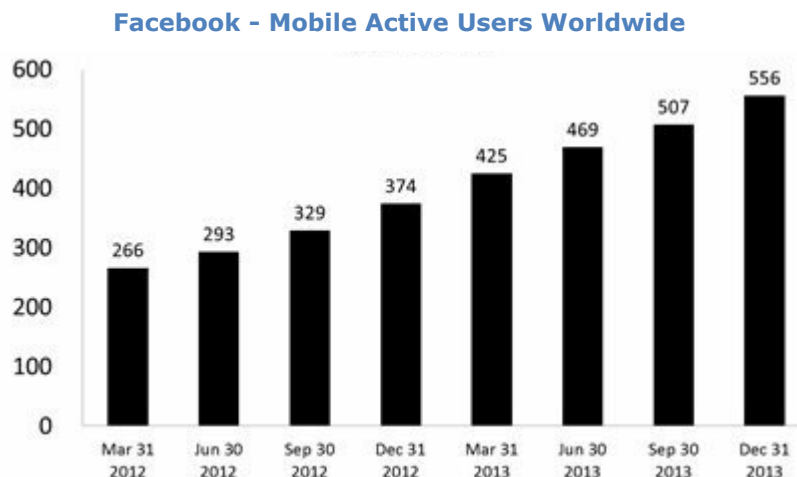
Source: Annual Report (2013: 38)

As of 31 December 2013, Facebook had 6,337 employees. Facebook has operations teams to provide support for users, developers, and marketers in five regional centres located in Menlo Park (California); Austin (Texas); Dublin (Ireland); Hyderabad (India); and Singapore. The research and development expenses were USD 1.4 billion in both 2013 and 2012 and USD 388 million in 2011.

Facebook has acquired more than 40 companies. Its largest acquisition to date has been the purchase of WhatsApp, in 2014, for USD 19 billion, followed by Oculus VR (USD 2 billion). It also bought Instagram in 2012 for USD 1 billion.

Business model

Facebook's profile structure includes a timeline, information related to the user, images of the user, images added by friends of the user, notes, pages, groups, and more. It enables its users to create pages related to entertainment, sports, business, finance, preferences, hobbies, culture, religion, causes, organizations, and a number of other categories. It also enables its users to join or create groups related to a vast number of categories.

Facebook generates the substantial majority of its revenue from selling advertising placements to all kinds of marketers, including brand marketers, direct marketers, small and medium sized businesses, and developers. For 2013, 2012, and 2011, advertising accounted for 89%, 84% and 85%, respectively, of revenue.

Facebook provides the following services to marketers:

- *Targeted Reach*: with over 1.2 billion MAUs using the service every month from 2013, Facebook offers marketers the ability to reach their existing and prospective customers, to target their ads to people on Facebook based on demographic factors such as age, location, gender, education, and specific interests that users have chosen to share. In addition, marketers may choose to match their own data or third-party data with Facebook's data, so they can find existing customers or potential new ones directly on Facebook. Marketers have the ability to include social context (information that highlights a friend's connections with a particular brand or business,) with their marketing messages.

- *Facebook Ads*: offer marketers the opportunity to communicate their messages to consumers and to direct them to specific destinations such as a web page or a Facebook Page. Marketers purchase ads that can appear in multiple locations including in the right-hand side of most page types on personal computers and in the News Feed on personal computers or mobile devices.

- *Facebook Ad System*: these creation tools are designed to align with marketers' advertising goals. When marketers create an ad campaign on Facebook, they can

specify their marketing objectives and the types of people they want to reach. In addition, marketers can use products such as Custom Audiences to more precisely target people such as those who have previously expressed interest in that particular marketer. Using the ad system, marketers indicate the maximum price they are willing to pay for their ad, either per click (CPC), per action (CPA), or per thousand impressions (CPM), and their maximum budget. The system also supports guaranteed delivery of a fixed number of ad impressions for a fixed price.

- *Ad Measurement:* the platform can be used to track and optimize both the in-store and online performance of their ad campaigns. Offline and online conversion measurement and partnerships with third parties help marketers understand how their ad investments impact specific business outcomes (e.g. in-store sales, offsite conversions, application installs). These insights also help marketers make modifications to their ad campaigns to maximize results.

Facebook provides a set of development tools and application programming interfaces (APIs) that enable developers to easily integrate with Facebook to create mobile and web applications.

These services trigger another stream of revenues; from developers who use the payments infrastructure to sell virtual and digital goods (like for instance video games[29]) to users. Revenue also comes from developers who choose to purchase ads from the company.

Facebook is currently the owner of many other applications and services such as Pagemodo Pagebuilder, RSS Graffiti, Huddle, and more. The company has strategic partnership with AXA Group to develop marketing and commercial collaboration in the digital, social, and mobile sphere.

Financial data

Facebook started with USD 500,000 from Peter Thiel (LinkedIn) and Reid Hoffman, went through several rounds (11 in total that brought DST Global, Goldman Sachs, Elevation Partners, TriplePoint Capital, Li Ka-shing, Horizons Ventures, Stuart Peterson, European Founders Fund, Microsoft, Meritech Capital Partners, Greylock Partners, Mark Pincus, Accel Partners, SV Angel. Facebook was incorporated in Delaware in July 2004.

In January 2011 received USD 1.5 billion that contributed to value the company at USD 50 billion. In February 2012, Facebook announced that it was filing for its long-anticipated initial public offering; the company went public on 18 May, Facebook announced positive numbers in February 2012 upon filing for its IPO. The company collected 16 billion. It was seen as one of the biggest IPOs in technology and Internet history, with a peak market capitalization of over USD 104 billion. However, the stock fell as soon as it opened, and the share prices crashed more than 50% over the next couple of months. It took more than a year for the shares to trade above the USD 38 listing price (Nielson, 2014).

As of June 2015, its market cap was USD 226.37 billion, total assets were USD 17.89 billion (Annual Report 2013:60).

In 2014, revenue was USD 12.466 billion. The company looks profitable although profits look erratic when looking at the table below (net income), however it amounted to 19% of the revenue for 2013. During the first quarter of 2015 the average revenue per user (ARPU) was USD 2.50

Facebook has never declared or paid cash dividends on capital stock, and intends to retain any future earnings to finance the operation and expansion of the business.

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[29] Zynga started selling virtual items exclusively on Facebook (see case study).

Facebook - Consolidated statements of income (2009-2013, in millions USD)

		Year Ended December 31,			
	2013	2012	2011	2010	2009
		(in millions, except per share data)			
Consolidated Statements of Income Data:					
Revenue	$ 7,872	$ 5,089	$ 3,711	$ 1,974	$ 777
Total costs and expenses[1]	5,068	4,551	1,955	942	515
Income from operations	2,804	538	1,756	1,032	262
Income before provision for income taxes	2,754	494	1,695	1,008	254
Net income	1,500	53	1,000	606	229

Source: Annual Report (2013: 34).

Founders

Mark Zuckerberg is the highly visible CEO. The story about starting Facebook in his college dorm in 2004 with room-mates D. Moskovitz and C. Hughes is as well-known, as the stories of the fights with fellow co-founders. M. Zuckerberg attended Harvard but only A. McCollum, and E. Saverin seem to have graduated.

Brazilian born, E. Saverin studied economics as an undergraduate at Harvard College, where he received his BA in 2006.

C. Hughes is a founder of Jumo, who prior to founding Jumo, worked as an Entrepreneur in Residence (EIR) at General Catalyst Partners in 2009. Dustin Moskovitz left Facebook, in 2008, to found Asana. Andrew McCullum joined Flybridge as an entrepreneur-in-residence[30] (EIR) in May 2011.

Key words: advertising placements, mobile turn, services.

Source:

Annual Report 2013:

> http://investor.fb.com/annuals.cfm

> http://investor.fb.com/releasedetail.cfm?ReleaseID=908022

> http://finance.yahoo.com/q?s=FB

> https://www.crunchbase.com/organization/facebook#sthash.TgTfkbEG.dpuf

Nielson, S., (2014), "Why did Facebook's shares fall after its initial public offering?" http://marketrealist.com/2014/01/facebook-ipo/

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[30] Entrepreneur-in-residence (EIR) EIR is a position at a venture capital firm. (…) The goal is for the EIR to create the next company that the VC firm will fund. *Source*: Forbes.com.

Flipkart (India, 2007) - An Indian Amazon

A brief corporate history

Founded in 2007, in Bangalore, by Binny Bansal and Sachin Bansal (CEO) (unrelated), Flipkart is an online shopping destination for electronics, books, music and movies. The Indian start-up is often held as the future India's Alibaba. Sachin Bansal explained that "*in fact our role model is Alibaba and we are looking to implement a lot of learnings from the China,*" (Rai, 2014). Besides, as stressed by Verma and Dalal (2015), India is considered as the last big Internet market as the explosive sales of smartphones have made the Internet accessible to hundreds of millions of as-yet untapped shoppers (see figure below). They add, that "*Tech investors in the US, Europe and Asia, which either missed out on the record initial public offering (IPO) of China's Alibaba Group or were enriched by it, are queuing up to invest in India's e-commerce companies*".

Flipkart - E-commerce in India
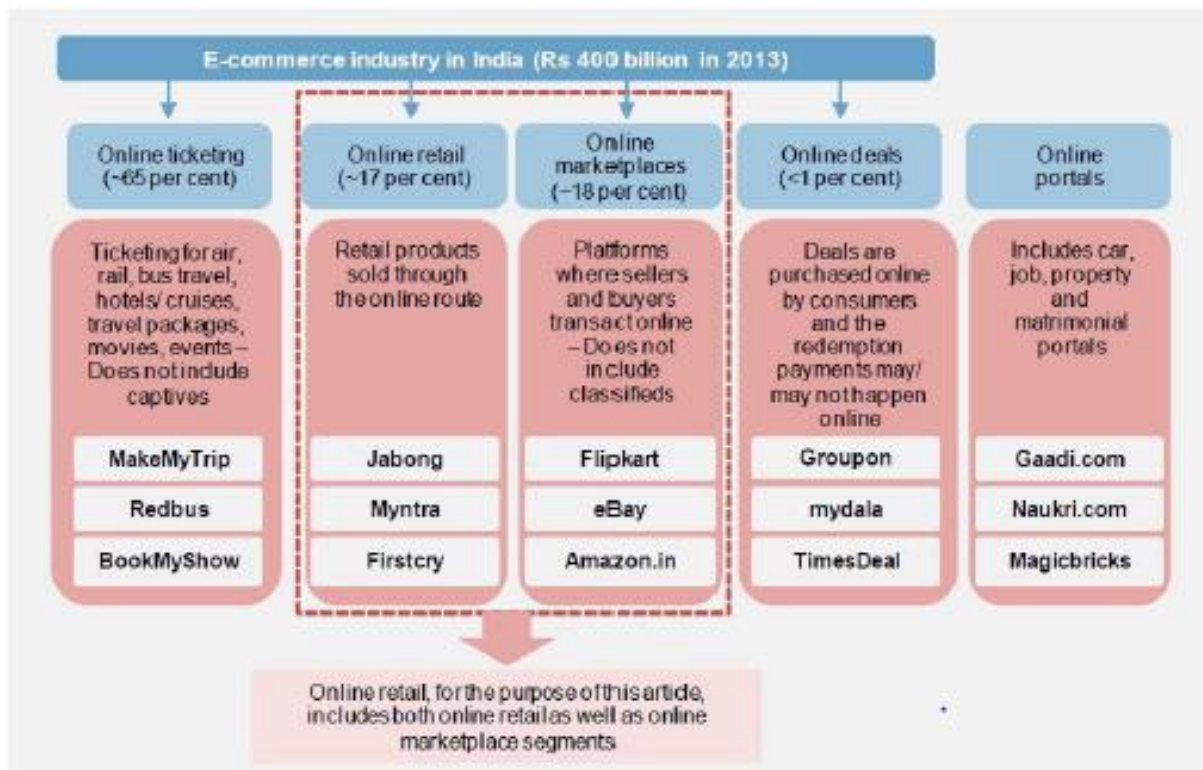
Source: CRISIL 2014 quoted by Fahrat (2014).

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Flipkart - Milestones of the company

Source: http://www.flipkart.com/about-us (last accessed April 2015)

Business model

Flipkart started off by hawking books and music, then extending to personal gadgets and electronics (see following figure). It now sells products in a wide range of categories. Opened initially as a "direct online retail", it shifted to a "marketplace model because of the legal restrictions on FDI for online retail. Flipkart was the first Indian company to introduce a cost on delivery payment system. Its payment methods besides cash on delivery, include credit or debit card transactions, net banking, e-gift voucher and card swipe on delivery.

In 2010, Flipkart acquired WeRead, a social book discovery tool. In 2011, it bought Mime360, a digital content platform company, and Chakpak.com, a Bollywood news site that offers updates, news, photos and videos. Flipkart acquired the rights to Chakpak's digital catalogue which includes 40,000 filmographies, 10,000 movies and close to 50,000 ratings. In 2012: Letsbuy.com, an Indian e-retailer in electronics. That same year, the company entered the digital music market with Flyte, its digital music store. Flipkart acquired in 2014 for an estimated USD 330 million, Myntra, a retailer, also founded in 2007 that leads in the online fashion retail segment with innovative marketing. The new entity combines on-line retail and on-line market places (see figure below). In 2015, Flipkart acquired a Bangalore-based global mobile network AdiQuity for an undisclosed amount.

On its website the company claims 26 million registered users, and 8 million daily page visits. Flipkart India Pvt Ltd reported revenues at Rs 28.46 billion[31] in the year ended March 2014, more than double the Rs 11.80 billion a year ago. On a consolidated basis though, including electronics chain HyperCity, Shoppers Stop sales amounted to Rs 37.71 billion. The Kishore Biyani-run Future Lifestyle Fashion posted total income of Rs 27.43 billion from its department store formats Central and Brand Factory besides its own labels such as Indigo Nation and John Miller.

Flipkart's revenue[32] soars fivefold to more than Rs 11.80 billion in 2013, but expenses jump more than five times to Rs.13.66 billion. The company has been making losses just like its main competitors in India, Amazon and Snapdeal: Flipkart posted a net loss of Rs 40 billion, while Amazon India posted a net loss of Rs 32.1 billion for FY14, and Snapdeal reportedly posted a net loss of Rs 26.4 billion. However, Flipkart is a clear market leader with a market share of 44% of online retail, much ahead of Snapdeal (32% market share according to a March 2015 report by Morgan Stanley quoted by Verma and Dalal (2015).

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[31] Currency exchange: one indian rupee is approx. 0.01 euro.
[32] Figures often given "crore" a unit in the Indian numbering system equal to ten million (1/10 of a billion).

Financial data

Flipkart's investors include MIH India of the Naspers group (10%), Accel Partners, Iconiq Capital Llc and Tiger Global. As India has banned foreign direct investment (FDI) in online retail (BtoC but not BtoB), Flipkart, along with most other e-commerce firms, have created a complex holding structure: Flipkart India Pvt. Ltd, owned by Flipkart Pvt. Ltd, Singapore, is just one, others include its technology platform (on which it allows other retailers to sell), and its digital payment businesses (Dalal, 2013).

It took the company six years to reach the billion threshold. Flipkart, which has raised close to USD 2 billion from investors in 2014, is expected to be valued at nearly USD 15 billion in its next round of funding (Dalal, 2015) from less than USD 3 billion at the beginning of 2014.

Founders

Sachin Bansal and Binny Bansal, both alumni of the Indian Institute of Technology Delhi had been working for Amazon.com previously.

Key-words: growth by M&A, easy access to VC funding, uncertain business model, direct online retail marketplace model.

Source: http://www.flipkart.com/about-us

Dalal, M. (2015), "Profitability is important for Flipkart, Myntra: Mukesh Bansal". http://www.livemint.com/Companies/9piwItuL2W8aMQuOISwVGK/Profitability-is-among-the-top-five-priorities-for-us-Mukes.html

Dalal, M. (2013), "Flipkart India reports loss of Rs.281.7 crore". http://www.livemint.com/Companies/nEzvGCknQDBY2RgzcVAKdO/Flipkart-India-reports-loss-of-2817-crore.html

Farhat, F. (2014), "Flipkart-Myntra; From a Merger to an Acquisition", *International Journal of Management and International Business Studies*, Vo.4, N°1, pp.71-84. www.ripublication.com

Rai, S. (2014), "Online Retailers Hustle To Build An Alibaba In India, take on Amazon". http://www.forbes.com/sites/saritharai/2014/05/22/local-online-retailers-hustle-to-build-an-alibaba-in-india/

Sagar, A. (2012), "Study of "Flipkart.com"". http://fr.slideshare.net/probikersagar/study-of-flipkartcom-indias-leading-ebusiness-portal

Verma, S., Dalal, M. (2015), "India's e-commerce frenzy". http://www.livemint.com/Companies/PKYPXSiOwle8hOkgUi8mpL/Indias-ecommerce-frenzy.html

Garena (Singapore, 2009): A global platform from Singapore[33]

A brief corporate history

Headquartered in Singapore, Garena was founded in 2009 by Forrest Li (CEO) with friends. [34] Garena is a platform provider for online and mobile entertainment, and communication.

On its website the company explains its mission in the following fashion: "*Connecting the dots speaks volumes about the revolutionary industry we are in. We believe the core value of the Internet is connecting - connecting people, information, goods and services. These are the "dots" that we strive to connect in our daily work*".

The company is said to have become the top games publisher in the fast growing market of Southeast Asia after it received an investment from Chinese internet giant Tencent, which also gave Garena an exclusive license to distribute *League of Legends[35]* in the region.

Valued at USD 1 billion in 2014, Garena is Singapore's biggest internet company (Lee, 2014a). It took 5 years for the company to each the 1 billion threshold.

Garena is privately held, one of its biggest investors is Tencent, which began investing in the company as early as 2013. Early 2015, it raised a new round of funding, led by The Ontario Teachers' Pension Plan (OTPP) with participation from existing investors that leads to values the company at over USD 2.5 billion.

Garena launched its own venture capital firm (Garena Venture) to invest in startups. Garena has invested in Redmart, an online supermarket in Singapore. It also started Wahbanana, a YouTube channel that created game-related videos but soon moved into Singaporean-style comedy (Lee, 2014b).

Business model

Garena started off creating software that linked people up for multiplayer games, then ventured into game distribution. In 2010, Garena launched its first product, Garena+, an online game and social platform for people to meet, chat and play games with each other. By combining a communications tool with compelling digital content, Garena "re-invented" the business model for online games in Southeast Asia and created a true platform with strong network effects. Since its launch, many premium micro-transaction based online games have been exclusively available on Garena+ including three of the most popular titles in Southeast Asia: *League of Legends, Heroes of Newerth*, and *FIFA Online 3*. Like other online game service providers, Garena+ users use a virtual currency.

Since then, Garena has added extensions to its original platform:

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[33] Connecting the dots: based on Steve Jobs "How dots could connect in one's life", a speech given at Stanford University in 2005. Used by GARENA in its mission statement. See also speech by Steve Jobs: http://news.stanford.edu/news/2005/june15/jobs-061505.html.

[34] Interestingly, the founder coined the name of the company "Garena," with a play on the words "global arena".

[35] Ranking n°1 in China, a game developed by Riot a US company acquired by Tencent (see case study).

- In 2012, Garena launched TalkTalk, a real-time voice and video communication platform.
- In 2013, it launched BeeTalk, the first indigenous mobile social network in Southeast Asia. The BeeTalk mobile app helps people create new relationships and join communities based on locations and interests. It has become one of the most popular and fastest growing apps in the region.
- In 2014 it launched AirPay, one of Southeast Asia's fastest growing payments networks and a key tool for bridging the 'digital divide' to provide accessible financial services in emerging markets.

Garena users can pay for online games, telephone bills, utilities, and e-commerce transactions on the AirPay network – regardless of whether they have a bank account or credit card Garena has rapidly expanded into multiple product lines. The combination of PC and mobile, content and communications, and micro-transactions and payments is the foundation of Garena's value proposition.

Financial data

The company claims to have 17 million monthly active users on the PC and 11 million on mobile. Most of its users come from Southeast Asia, but it has expanded into Taiwan and Hong Kong as well. It made USD 22 million in revenue in 2012, growing three times from the year before, according to Garena's financial documents. In 2014, its annual revenue reached USD 200 million (Lee, 2015 company website).

Founders

F. Li (CEO) holds a Bachelor's degree in Engineering from Shanghai Jiaotong University in China and an MBA from Stanford University in the United States.

Key words: micro-transactions, platform provider, scalability ("connecting the dots"), software for multiplayer games.

Source: http://www.garena.sg/about/

Lee, M. (2015), "Garena raises money from Ontario Teachers' Pension Plan, reaches $200M in revenue". https://www.techinasia.com/garena-raises-money-ontario-teachers-pension-plan/

Lee, M., A., (2014a), "Valued at $1bn, Garena is Singapore's biggest internet company". https://www.techinasia.com/valued-at-1bn-garena-is-singapores-biggest-internet-company/

Lee, M., A., (2014b), "Top games publisher Garena launches venture arm, to invest 'eight figures' each year". https://www.techinasia.com/top-games-publisher-garena-launches-venture-arm-invest-eight-figures-year

Google (US, 1998) - Organizing the world's information

A brief corporate history

Google was founded in 1998 by Larry Page and Sergey Brin. On its website, the company explains that the founders "*started Google because they share a profound sense of optimism about the potential for technology to create a positive impact in the world*". The two founders explained in their first letter to shareholders that their goal was to: "*... develop services that significantly improve the lives of as many people as possible.*" The company describes its odyssey (Annual Report 2015: 1) as beginning with a series of questions: "*What if we could download and index the entire web? What if we could organize all the world's information? And then we went out and searched for the answers*".

The company is headquartered in Mountain View, California. It has offices all over the world, primarily in North America, Europe, South America, and Asia. Google is now a multinational corporation that is specialized in internet-related services and products. Starting with its web-based search engine (Google Search), the company has extended its portfolio (see box below) introducing its open-source mobile software platform Android. The company provides cloud services and is a pioneer of Big Data.

<div style="text-align:center"><strong style="color:#4a7ebb">Google's product portfolio</div>

The company's product portfolio includes Google Search, which provides users with access to information online; Knowledge Graph that allows to search for things, people, or places and also builds systems recognizing speech and understanding natural language; Google Now, which provides information to users when they need it; Product Listing Ads that offers product image, price, and merchant information; AdWords, an auction-based advertising programme; AdSense, which enables websites that are part of the Google Network to deliver ads; Google Display, a display advertising network; DoubleClick Ad Exchange, a marketplace for the trading display ad space; and YouTube that offers video, interactive, and other ad formats.

Additionally, the company offers Android, an open-source mobile software platform; hardware products, including Chromebook, Chrome, Chromecast, and Nexus devices; Google+, a social platform to share to share content with others; Google Play, a cloud-based digital entertainment store for apps, music, books, and movies; Google Drive, a place for users to create, share, collaborate, and keep their stuff; and Google Wallet, a virtual wallet for in-store contactless payments.

Further, it provides Google Apps, which include Gmail, Calendar, and Google Sites that are built for people to work anywhere, anytime, on any device; Google Maps Application Programming Interface; Google Earth Enterprise, a software solution for imagery and data visualization; Google App Engine, a Platform-as-a-service; Google Cloud Storage; Google BigQuery for real-time analytics; Google Cloud SQL for structured query language; and Google Compute Engine, an Infrastructure-as-a-service-Platform. It also offers mobile wireless devices, and related products and services.

Source: Crunchbase (2015)

After a period of three years of organic growth, Google started acquiring companies. The pace of products and services deployment increased after 2001. In 2005, Google acquired Android, a mobile software companies, moving into the mobile sphere. The following year, in 2006, Google bought the popular online video site YouTube for USD 1.65 billion, and maintained YouTube as a separate brand.

Google - Timeline of Google products, services, and acquisitions
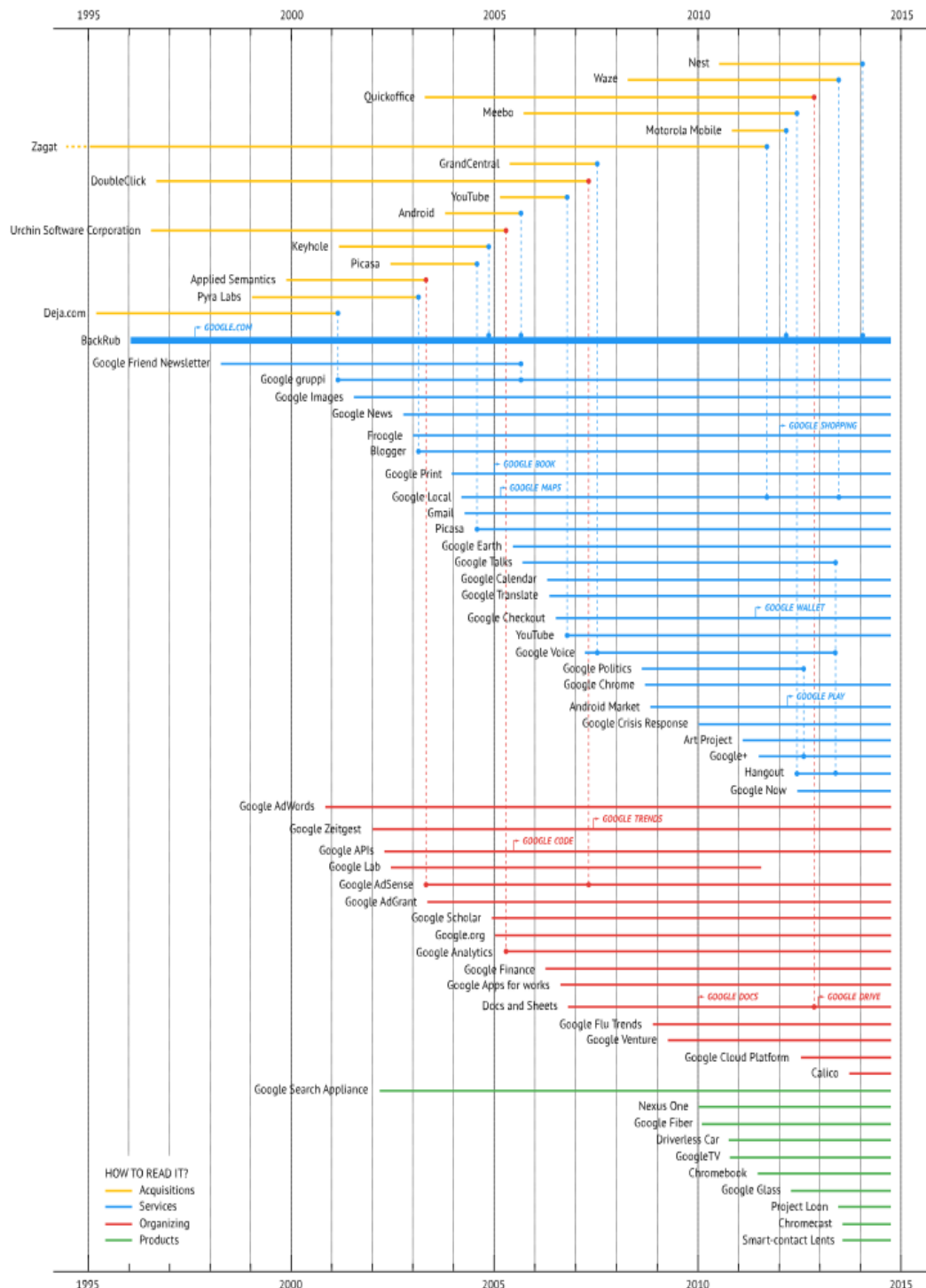
Source: Nicoletta Bruno, DensityDesign Research Lab, Polytechnic University of Milan. Acquisitions in yellow, introduction of services in blue, of products in green, creation of departments/ organisation in red.

In 2014, the Motorola Mobile business, acquired in 2011 for a solid USD 12.5 billion, was sold to Lenovo for a total purchase price of approximately USD 2.9 billion. Google maintained ownership of the vast majority of the Motorola Mobile patent portfolio, including pre-closing patent applications and invention disclosures, which is licensed to Motorola Mobile for its continued operations. In 2013, the Motorola Home business was sold to Arris for USD 2.4 billion.

On 20 January 2015, Google invested USD 900 million in SpaceX, a space exploration and space transport company, to support continued innovation in the areas of space transport, reusability, and satellite manufacturing.

In August 2015, Google announced a major reshuffling of the company, creating a parent entity, under a new name, Alphabet, housing several companies, with the biggest among them Google. The holding-company structure is set to provide more financial transparency. Starting in the fourth quarter, Alphabet will break out financial results for Google Inc., as well as for the overall company. It has been described as "*separating its moneymaking businesses from the moonshot ones*" (Doughertyaug, 2015) (see box below for an explanation of "moonshots"). Doughertyaug added that "*Now Google is listening to Wall Street*".

<div align="center">

Google - Moonshots as defined by Google

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"The idea of trying new things is reflected in some of our new, ambitious projects. Everything might not fit into a neat little box. We believe that is exactly how to stay relevant. Many companies get comfortable doing what they have always done, making a few incremental changes. This incrementalism leads to irrelevance over time, especially in technology, where change tends to be revolutionary, not evolutionary. **People thought we were crazy when we acquired YouTube and Android, and when we launched Chrome**. But as those efforts have matured into major platforms for digital video and mobile devices, and a safer, popular browser, respectively, we continue to look towards the future and continue to invest for the long-term."

Source: Annual Report (2014: 4), our emphasis.

Business model

Google generates revenues primarily by delivering online advertising. In 2014, Google websites accounted for 68%, of the revenues, Google Network Members' websites for 22%. Other revenues (10% in 2014) come from sales of digital content products, such as apps, music, and movies on the Google Play store. The company generate revenues primarily by delivering both performance advertising and brand advertising.

Performance advertising creates and delivers relevant ads that users will click, leading to direct engagement with advertisers. Most of the performance advertisers pay on a cost-per-engagement basis, for example, when a user engages in their ads. Brand advertising enhances users' awareness of and affinity with advertisers' products and services, through videos, text, images, and other ads that run across various devices.

Google AdWords is an auction-based advertising program that enables performance advertisers to place text-based and display ads on Google websites and on Google Network Members' websites. Most customers pay on a cost-per-click basis, which means that an advertiser pays only when a user clicks on one of its ads. The company also offers advertising on a cost-per-impression basis that enables brand advertisers to pay according to the number of times their ads display on Google websites and Google Network Members' websites as specified by the advertisers.

For the sale of certain third-party products and services, the amounts earned are typically determined using a fixed percentage, a fixed fee, or a combination of the two.

Various antitrust investigations have been opened against Google. On 30 November 2010, the European Commission's (EC) Directorate General for Competition opened an investigation into various antitrust-related complaints. The Comision Nacional de Defensa de la Competencia in Argentina, the Competition Commission of India, the

Taiwan Fair Trade Commission, Brazil's Council for Economic Defence and the Canadian Competition Bureau have also opened investigations into certain business practices. In the US several investigations are under way in some States: Mississippi issued subpoenas in 2011 and 2012, in Ohio and Texas the cases were closed in 2014. FTC has investigated Google's Internet search business in 2013 and is reported to start an investigation of its Android business.

Financial data

The company was incorporated in California in September 1998 and reincorporated in Delaware in August 2003. Google Inc., got started through a 100 000 dollars check from Andy Bechtolsheim, Sun cofounder. One year later, they received USD 25 million from Sequoia Capital, and Kleiner Perkins Caufield & Byers. The company went public in 2004, collecting USD 1.67 billion.

Google revenues reached USD 66 billion, rising by almost 19% over 2013 (see box below). 89% of Google revenues were generated from advertising in 2014 (over USD 59 billion). With almost 22% of net income, the company looks highly profitable. As of 31 December 2014, Google employed 53,600 full-time employees, of which 20,832 are in research and development. In 2014, R&D expenditures reached USD 9.8 billion, 14.9% of the total revenues.

Google never declared or paid any cash dividend on its common or capital stock, intending to retain any future earnings in the foreseeable future. As of June 2015, the market cap was of USD 362.56 billion, to be compared with total assets in the 2014 annual report that amounted to USD 131 billion.

<div align="center">

Google - Key financial results for 2014

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- Consolidated revenues increased 18.9% to USD 66 billion, primarily driven by an increase in advertising revenues generated by Google websites and an increase in other revenues, and to a lesser extent, an increase in advertising revenues generated by Google Network Members' websites.
- Revenues from the United States, the United Kingdom, and Rest of World were USD 28.1 billion, USD 6.5 billion, and USD 31.4 billion, respectively.
- Cost of revenues was USD 25.7 billion, consisting of traffic acquisition costs of USD 13.5 billion and other cost of revenues of USD 12.2 billion. Our traffic acquisition costs as a percentage of advertising revenues was 22.9%.
- Operating expenses (excluding cost of revenues) were USD 23.8 billion, primarily driven by labour and facilities-related costs for our research and development and sales and marketing functions, advertising and promotional expenses, and stock based compensation expense.
- Income from operations was USD 16.5 billion and net income was USD 14.4 billion with diluted earnings per share of USD 21.02.
- Operating cash flow was USD 22.4 billion.
- Capital expenditures were USD 11.0 billion.

Source: Annual Report (2014: 21).

Google - Consolidated statements of income (2012-2014)

(In millions, except share amounts which are reflected in thousands and per share amounts)	Year Ended December 31,		
	2012	2013	2014
Revenues	$ 46,039	$ 55,519	$ 66,001
Costs and expenses:			
Cost of revenues[1]	17,176	21,993	25,691
Research and development[1]	6,083	7,137	9,832
Sales and marketing[1]	5,465	6,554	8,131
General and administrative[1]	3,481	4,432	5,851
Total costs and expenses	32,205	40,116	49,505
Income from operations	13,834	15,403	16,496
Interest and other income, net	635	496	763
Income from continuing operations before income taxes	14,469	15,899	17,259
Provision for income taxes	2,916	2,552	3,331
Net income from continuing operations	$ 11,553	$ 13,347	$ 13,928
Net income (loss) from discontinued operations	(816)	(427)	516
Net income	$ 10,737	$ 12,920	$ 14,444
Net income (loss) per share—basic:			
Continuing operations	$ 17.66	$ 20.05	$ 20.61
Discontinued operations	(1.25)	(0.64)	0.76
Net income (loss) per share—basic	$ 16.41	$ 19.41	$ 21.37
Net income (loss) per share—diluted:			
Continuing operations	$ 17.39	$ 19.70	$ 20.27
Discontinued operations	(1.23)	(0.63)	0.75
Net income (loss) per share—diluted	$ 16.16	$ 19.07	$ 21.02

Source: Google, Annual Report (2014: 44).

Founders

The two founders were PhD students at Stanford; L. Page had a computer an engineering degree, S. Brin had a computer and maths background. In 1996, while at Stanford, they created a search engine "BackRub" (see previous figure). During his time in Ann Arbor, L. Page built an inkjet printer out of Lego bricks.

Source: https://www.google.com/about/company/facts/

https://investor.google.com/

https://www.crunchbase.com/organization/google#sthash.DoM0RQjR.dpuf

Doughertyaug, C., (2015),"Google to Reorganize as Alphabet to Keep Its Lead as an Innovator". http://www.nytimes.com/2015/08/11/technology/google-alphabet-restructuring.html?emc=edit_na_20150810&nlid=56681898&ref=cta&_r=0

# KakaoTalk (South Korea, 2006) - The global South Korean platform

A brief corporate history

Kakao was founded in 2006, as IWILAB, by Jae-Beom Lee and Beom-Su Kim. Kakao is the company behind KakaoTalk, which is both a messaging app and a platform for a range of mobile services. Kakao Talk is a multi-platform texting app compatible with iPhone, Android, BlackBerry, Bada OS, BlackBerry, Windows Phone, Nokia Asha and Personal Computer. The company provides users free mobile, instant messaging application for smartphones with free text and free call features. The firm provides services in the arena of digital content, business marketing, commerce, and game platform optimized for mobile devices. The company describes its mission as "to be the No.1 platform in the mobile world and connect people to the future".

Launched on March, 2010, the app is currently available on iOS, Android. That same year IWILAB became Kakao. KakaoTalk has 140 million users and is available in 15 languages, with over 426 games on its games platform contributed by 217 game developers and partners. The app is also used by 93% of smartphone owners in South Korea where the company is headquartered. When the first smartphone was introduced in Korea in 2009 and eventually went mainstream, the founding team, J. B. Lee and B. Kim, saw an opportunity to build a world-class smartphone application. KakaoTalk supports 12 languages, including English, Spanish and Japanese, and is available in 230 countries. The vast majority of the KakaoTalk user base, however, is in Korea.

KakaoTalk - Growth of the company
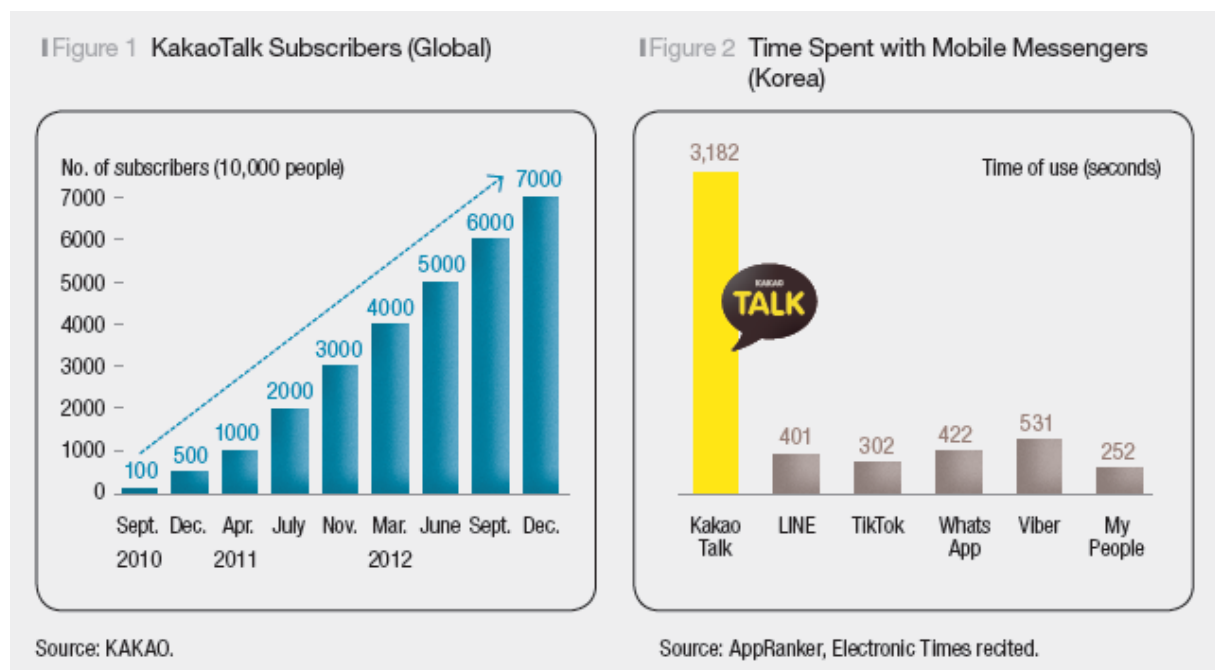
Source: Choi Eunjeong (2013).

In October 2014, Kakao merged with Daum, another South Korean strong player in the mobile space, according to Yonhap News Agency. The new entity was valued at close to a massive sum of KRW 10 trillion won (USD 9.45 billion) (quoted by Tay, 2014). In January 2016, Kakao announced it will acquire a controlling stake in South Korea's leading music streaming company for KRW 1.87 trillion (USD 1.58 billion). Kakao will take a 76.4% stake in Loen Entertainment's MelOn, which has 28 million local users (Waring, 2016). Kakao Taxi was launched in 2015 and also Kakao TV.

In August 2014, the company was named a 2015 Technology Pioneer by the World Economic Forum, making it the first Korean company to be recognized since 2001. Previous Technology Pioneers of the World Economic Forum include Google (2001), Mozilla (2007), Twitter (2010), Spotify (2011), Dropbox (2012) and Airbnb (2013).

Business model

As Choi Eunjeong highlights: *"Initially, Kakao had practically no revenue model"*, adding *"Playing Game powered the financial turning point"*. KakaoTalk has evolved into a platform where users can spend time gaming, shopping and social networking. This created a highly lucrative technology company.

Kakao Corp. has released more than 10 services in less than three years of entering the mobile market. Starting in 2010 with a "gifting" feature that enabled users to buy gifts and coupons virtually and send it to their friends via KakaoTalk. In 2011, Plus Friend was introduced in which users received messages, announcements, coupons from celebrities and brand name stores. This is a feature which acts as a source of advertisement and marketing for companies and celebrities, since KakaoTalk does not have banner ads. KakaoTalk also features emoticons that can be purchased in the "Item Store". In 2012, Kakao Corp. introduced a gaming system, Playing Game, in which gaming items may be purchased. Kakao also expanded its social networking system by introducing Kakao Story, a mobile photo sharing application. Kakao Style, a fashion trend and retail application, was introduced along with Choco, Kakao's cyber money. With 93% of South Korea's users on KakaoTalk, the free downloads of the games "Ani Pang" and "Dragon Flight", which can only be played with a Kakao Talk account, were deemed "national" games.

Kakao describes itself now as a mobile social platform. The company describes it mission in the following fashion: *"to create and maintain a sound mobile ecosystem in which all our stakeholders including smartphone users, app developers and content providers can grow together"*. The South Korean company set up the ambitious goal of *"thriving together with one million partners on our platform"*. In June 2014, the South Korean start-up launched Kakao Lab on the Android version of its popular messaging service, users will be able to access Kakao Lab through the "Other" menu in their KakaoTalk Settings and take part in testing out the new features designed by Kakao's developers.

Kakao Lab is another example of Kakao's continued dedication to providing the most enjoyable and user-friendly mobile experience possible. The features available in Kakao Lab will be fine-tuned based on user response

Financial data

Although Beom-Su Kim provided capital in the beginning, others soon recognized the firm's potential, and outside investment was recruited three times (Jan 2011: KRW 5.3 billion, Sep 2011: KRW 20.6 billion, Apr 2012: KRW 92 billion). In 2011, Korea Investment Partners, DCM, CyberAgent Ventures, and Maverick Capital bought share of the company (₩20.6B / Series A). In April 2012, Tencent, and Wemade Entertainment, a Korean online game developer decided to invest KRW 92 billion into Kakao. (Choi Eunjeong, 2013). Tencent bought USD 62.9 million of private equity. In 2013, the company announced its plans for IPO with a valuation of USD 5 billion. It took 8 years for the Korean start-up to reach the billion threshold. In 2014, it received USD 10 million from VC Berjaya.

KakaoTalk – Sales and Net Profit
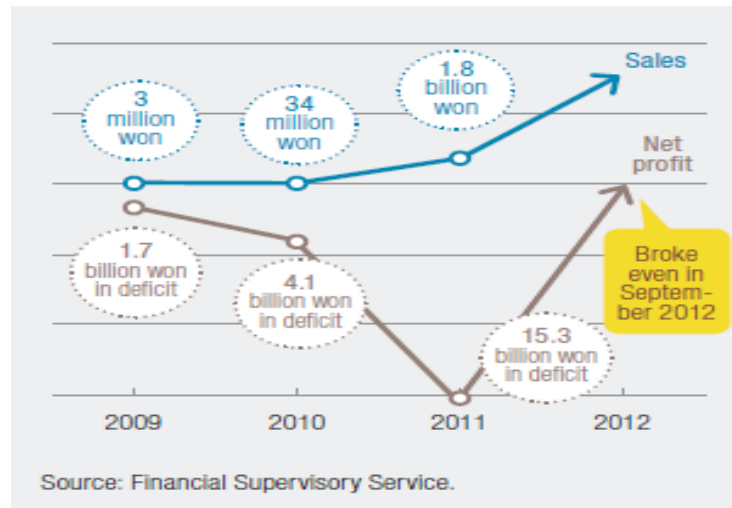
Source: Choi Eunjeong (2013).

In 2013, Kakao Corp. generated revenue of USD 203 million, netting USD 59 million in profits. 84% of the revenue was generated from commission through games, commerce, and digital content. Games are the primary source of revenues, games such as *Anipang*, a social puzzle game, and a localised version of *Candy Crush*, make up 64% of the company's revenue (Mac, 2014). Advertising revenue comes second. The third main source of revenue comes from the sales of emoticons that can be purchased within KakaoTalk for USD 2–3. The company offers also a taxi service, Kakao Taxi. Kakao now employs almost 700 employees.

Founders

Beom-Su Kim has an industrial engineering background. Beom-Su Kim worked at Samsung for six years, leaving in 1998 to found the online gaming company Hangame. Before launching Kakao, Kim made a fortune in Hangame, which merged with NHN in April 2000.

Key words: messaging app, digital content.

Source: www.kakao.com/

Choi Eunjeong. (2013), "KakaoTalk Mobile App Case Study". http://www.korea-marketing.com/kakaotalk-mobile-app-case-study/

Crunchbase(2015): https://www.crunchbase.com/organization/kakaotalk#sthash.AnzNWCcD.dpuf

Mac, R. (2014), "Mobile Master: KakaoTalk Creator Becomes One Of South Korea's Richest Billionaires". http://www.forbes.com/fdc/welcome_mjx.shtml

Tay, D., (2014), "Daum and Kakao merge, massive valuation puts them head-to-head with Naver-Line". https://www.techinasia.com/daumkakao-merges-massive-valuation/

Waring, J., (2016)," Kakao to spend $1.6B for local music streaming firm".

King.com (Sweden/UK, 2003) – Bitesize entertainment

A brief corporate history

King Digital Entertainment[36] (headquartered in London) formerly known as King.com (headquartered in Stockholm), is a casual-social games company providing online games for global portals, websites and other media companies. The company was founded in 2003 by Riccardo Zacconi (CEO), Tony Rowland, Lars Markgren, Patrik Stymne, Thomas Hartwig, and Sebastian Knutsson. King develops games for the web, for mobile (iOS, Android and Windows Phone), and for Facebook, being the largest game developer on Facebook.

On its website, King introduces itself as "*a leading interactive entertainment company for the mobile world, with people all around the world playing one or more of our games*", with more than 195 titles in over 200 countries. Their hits include *Candy Crush Saga, Farm Heroes Saga, Papa Pear Saga, Pet Rescue Saga and Bubble Witch Saga*. The company has 356 million average monthly unique users, as of fourth quarter 2014, across web and mobile platforms with 8.3 million of them being paying customers. King has game studios in Stockholm, Bucharest, Malmö, London, Barcelona, Berlin and Singapore along with offices in San Francisco, Malta, Seoul, Tokyo and Shanghai. Sales increased from nearly USD 60 million in 2009, to USD 1.88 billion in 2013 (IPO, 2014: 46). Sales in 2014 were over USD 2.6 billion, with *Candy Crush* generating nearly half of that amount.

Business model

The company designs casual games allowing people to play for a moment, then move on with their day and pick up their game later. Games are played on an in-house built technology platform that lets millions play anywhere, anytime, from any device, and provides social interactions between players. The games are also synchronized across platforms, allowing players to switch seamlessly between devices and platforms and continue their game wherever they left off. This gaming practice is described by the company as "*bitesize entertainment*". Their first game format, the Saga, is a game development framework designed to provide a viral and social game experience.

Games are available for free, while players can purchase virtual items priced relative to the entertainment value they provide. These virtual items include items such as extra lives and skill-enhancing boosters, as well as the ability to unlock additional game content. Their micro-transaction model includes multiple opportunities throughout gameplay for users to buy virtual items. A typical "consumable" virtual item is used immediately, and was priced at approximately USD 1 at the time of the IPO (IPO, 2014: 52). Some "durable" virtual items are offered in some games. A player can use these

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[36] In fact since its IPO in 2014, King is Dublin-based and run through a very complex holding company structure, see IPO (2014:45): corporate structure of Midasplayer.

items over extended periods of gameplay and they typically have a higher purchase price of USD 5 to USD 30. Durable virtual items accounted for 4%, 13% and 1% of revenue for the years ended 31 December, 2011, 2012 and 2013, respectively. In September 2012, King began to offer virtual currency to players on Facebook. This virtual currency can only be redeemed for virtual items and cannot be withdrawn. While 97.7% of people are playing King's games for free, the 2.3% (4% of monthly unique users as of 31 December 2013, IPO, 2014: 2) that pay are spending an average of USD 23.42 a month within the games.

King.com – An analogic portrait of the company

Source: IPO (2014: 85).

The long-term retention of these paying players is at the heart of their business model under the assumption that targeting a modest share of their customers drives game longevity and customer loyalty, and is the most effective way of building a sustainable business over the long term. King obtains the vast majority of their installs organically or through viral channels that are seeded by leveraging their significant capabilities in paid player acquisition: King runs thousands of discrete campaigns every 24 hours, each with individual target metrics.

Like Zynga (see case study) King.com claims that Free-to-play has created the potential for casual to lead other categories by revenue. The company believes in the effectiveness of free-to-play business models combined with a large increase in the casual audience to create the potential for leading entertainment franchises to emerge from the category.

"Candy Crush Saga" remained their largest game, still accounting for 40% of revenue in the quarter ended 30 September 2015 compared to 51% in the quarter ended 30 September 2014. The top three games in the quarter ended 30 September 2015, "Candy Crush Saga", "Candy Crush Soda Saga" and "Farm Heroes Saga" comprised 81% of the revenue in that quarter. Approximately, 82% of revenue was derived from the mobile audience. Revenue generated by payers in the United States were 51% , with no other country that accounted for more than 10% of revenue in the 3d quarter 2015 (Annual Report 2015: 33).

Financial data

The 2014 IPO prospectus indicates that the business has been built to significant scale with limited capital investment and disciplined business management. It raised only USD 9 million of primary capital up to 2014 and has generated positive cash flow from operations for each year since 2005. As their game portfolio, player network and mobile footprint have scaled, they enabled an organic growth. Mobile games, for instance, were the primary driver for the acceleration of revenue growth during the fourth quarter of 2012 and 2013.

Originally headquartered in Sweden, King nearly went bankrupt in 2003 (Reuters, 2014). The company raised USD 43 million in 2005 by selling a large stake to Apax and Index Ventures. The company finished the year with a profit for the first time and has been profitable each year since. Angel investor and former board member Klaus Hommels sold a similar stake in 2008. The company went public in 2014 to raise USD 500 million. It took the company eleven years to reach the threshold. The market cap reached USD 7.6 billion at the time of the IPO but the shares lost 15.56 USD the following day. As of April 2015, the market cap was of USD 5.28 billion (Yahoo Finance, 2015). In November 2015, Activision Blizzard [37] announced that they were buying King for USD 5.9 billion, an acquisition that has created the biggest games powerhouse in the Western world, second only to Tencent on a global scale (Newzoo, 2015).

After its 2014 IPO, the company allocated a special dividend to shareholders of record on 30 September 2014. On its website, King indicates not to have any plans to pay any additional dividends on its ordinary shares, but financial reports give the amount of dividends allocated.

Founders

R. Zaccioni served previously as vice president of European Sales and Marketing at uDate.com Ltd., an online dating service site created by Morris, until the company was acquired by InterActive Corporation in 2002 for USD 150 million. Before that, he was managing director for Spray Network GmbH an online portal based in Hamburg with a presence in Germany, France, Italy, Sweden, Denmark and Norway. In addition, R. Zaccioni has been an entrepreneur-in-residence at Benchmark Capital Partners, a Qualified Case Leader at The Boston Consulting Group, Inc. and a consultant at LEK Consulting LLP. He holds a B.A. in Economics from LUISS University, Italy.

S. Knutson served as the founder and chief creative officer of Fjord Network AB, a developer of IP-telephone services. Before that, he was co-founder of Spray Ventures AB, which seeded many successful Internet startups within Internet consultancy, consumer Internet services and e-commerce. At Spray, S. Knutson led product development for the European Spray portal, which outgrew many of its American peers. He has also served in various executive product development positions at Lycos Europe, N.V., Spray Network AB and Razorfish, Inc. He holds a B.A. in Cost Analysis and Finance from the Stockholm School of Economics, Sweden.

T. Hartwig worked at Fjord Network AB as a partner and developer after two years at Spray Network AB as chief system architect. Prior to this, he was a system developer at

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[37] Activision Blizzard, Inc. is an American video games publishing company headquartered in Santa Monica, California.

Razorfish Inc. and Seema Group. He studied Computer Science at Lund University, Sweden.

Key words: Casual games, Free-to-Play, Unique, Repeatable, Scalable Game Development Process

Source: www.king.com

IPO, Fourth quarter 2014: http://d1lge852tjjqow.cloudfront.net/CIK-0001580732/229dbc2f-621f-436e-bb64-52f39bfae91a.pdf?noexit=true

http://www.sec.gov/Archives/edgar/data/1580732/000119312514056089/d564433df1.htm

Reuters (2014). "UPDATE 1-Candy Crush maker King Digital valued at more than $7 bln in IPO". http://www.reuters.com/article/2014/03/25/kingdigital-ipo-idUSL4N0MM4PD20140325

Newzoo (2015), "Activision Blizzard Is King: Now Reaches 81.4 Million Americans" . http://www.newzoo.com/insights/activision-blizzard-is-king-now-reaches-81-4-million-americans/#B4j1d981uHUdqc37.99

Yahoo Finance (2015). http://finance.yahoo.com/q?s=KING

Naspers (South Africa, 1915) - Afrikaans go global

NB: This case study accounts for 3 companies (Allegro, Ricardo, and Naspers) and sketches their relationships. Naspers the holding company is the primary goal of this case study, Allegro and Ricardo are introduced as appendixes. Tencent, one of the major subsidiaries of the Naspers holding company, is dealt with in another case study. The Russian internet business, Port.ru, Inc. (mail.ru), another listed company with Tencent is not described.

A brief corporate history

Founded in 1915, the company is a broad-based multinational media group offering services in more than 130 countries. Its principal operations are in ecommerce (i.e. classifieds, online retail, marketplaces, online comparison shopping, payments and online services), pay television and print media. Naspers invested (early) in listed, integrated social-network platforms Tencent and Mail.ru. The South African group has been listed on the Johannesburg Stock Exchange (JSE) since September 1994 and has an ADR listing on the London Stock Exchange (LSE).

Naspers is a global platform operator with principal operations in:

- Internet services, especially ecommerce (i.e. classifieds, online retail, marketplaces, online comparison shopping, payments and online services);
- Pay television (direct-to-home satellite services, digital terrestrial television services and online services);
- Print media.

Naspers counts itself as the world's third largest player in e-commerce after Alibaba and Amazon by desktop Internet visitors, citing comScore data. According to the "Wall Street Journal", the company's intrinsic worth was almost USD 64 billion as of December 2014 which posits the company among the top ten internet companies by market cap.

Over the past few years, significant operations have been established in fast growing regions including Africa, China, Brazil and the rest of Latin America, Central and Eastern Europe, Russia, India, Southeast Asia and the Middle East (see following figure). The group operates predominantly in markets with growth potential. These include Africa, China, Latin America, Central and Eastern Europe, Russia, India, South-east Asia and the Middle East. Most of the company businesses are market leaders in their sectors

Naspers - The footprint

*Only includes country of domicile for associates, not their entire footprint

Source: Naspers.

The corporate history of the South African company can be divided into three periods[38], during the first period (1915-1979), it expanded from newspapers to books and magazine. During the second period (1980-1999), it diversified mostly into broadcasting, and during the last one from 2000 on, it added the Internet operations.

1915-1979: A print media group

Naspers was incorporated in Cape Town in May 1915. Named Die Nasionale Pers (Afrikaans for the National Press), the company started as a printer and publisher of newspapers and magazines. Naspers added book publishing to its newspaper and magazine printing and publishing operations. The business grew into one of Africa's leading media groups.

1980-1999: Entering broadcasting

In 1985 Naspers formed electronic Pay-TV business, M-Net, with several other South African media companies. M-Net, a terrestrial channel available only in South Africa, began broadcasting in 1986, was a joint venture of four newspaper publishers, breaking several decades of South African Broadcasting Corporation monopoly. Within a single decade, MultiChoice has become the preeminent content carrier in Anglophone Africa. It emerged from M-Net, South Africa's first private channel, and has expanded horizontally, moving from a terrestrial pay-platform in a single country, to a multi-platform provider across the African continent.

In 1993, M-Net was divided into two companies. The subscriber management, signal distribution and cellular telephone businesses, together with a holding in FilmNet (a pay-television operator in Europe) are placed into a new company called MultiChoice Limited (later named MIH Holdings Limited). MIH operates subscription services across the whole of Africa, as well as the Middle East, Greece and Thailand.

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[38] On its website the company breaks down its history into five periods: pre-90, 90-99, 2000-2009 and 2010-current. We opted for another periodization that focuses more on the dominant activity.

During that decade the group went through a set of complex acquisitions and sales that involved Richemont S.A., the Switzerland-based luxury goods holding company, interest in Telepiu – into a single venture called NetHold B.V., then with Canal, and acquired 49% of Irdeto Access from Canal+. MIH Limited also receiving a small interest in Canal+. OpenTV, another technology company, was bought in 1999 and sold 3 years later.

At the end of that period, in 1997 MIH Limited created an internet service provider: MWEB Holdings. MWeb is a leading internet service provider in South Africa.

2000- current: Out of Africa. The Internet era

In May 2001 Naspers acquires a 46.5% interest in Tencent Holdings Limited, the operator of an instant messaging platform in China called QQ. In 2006 the company invested in the Russian internet business, Port.ru, Inc. (mail.ru), in 2009 its participation was increased to 42.88% from 31 March 2009.

In the same period, in 2008, the company entered the central and eastern markets with the acquisition of 100% of Tradus, a leading provider of C2C ecommerce platforms. With 91% of BuscaPé, for USD 342 million, a leading ecommerce company offering online price comparison services the companies entered Latin America. In 2010, BuscaPé bought a 30% interest in Brandsclub, the leading private internet sales club business in Brazil, increased to 100% in 2012.

After China, and Russia, Napster started buying shares in India from 2012 onwards: 10% Flipkart, a leading ecommerce platform in India, for USD 102 million (up to 19% in 2013), 80% in redBus.com for USD 102 million in 2013. Flipkart is often perceived as the future India's Alibaba. redBus.com is India's biggest bus ticket portal. Beyond India, the group's interests continued to grow organically and through acquisitions in the rest of south-east Asia. Ibibo operates a portfolio of businesses, including online travel, e-commerce and games platforms. Sulit is the premier Philippines website. Middle-East markets have been addressed as well (30% investment in Souq.com, a leading ecommerce portal, SimilarWeb in Tel Aviv, a web measurement tool)

The company also strengthened its print businesses investing in the growth markets. In December 2004 MIH acquired a 9.9% strategic stake in Beijing Media Corporation, one of China's leading newspapers companies, with its flagship newspaper, the "Beijing Youth Daily". In May 2006 MIH acquired a 30% stake in the leading Brazilian media company Abril S.A. for USD 422 million.

The first and second periods appear to be characterised by internal organic growth and the last one by mergers and acquisitions as strongly illustrated by the investments in the then unknown Chinese start-up Tencent and more recently with Flipkart (India).

During the last quarter of 2014 Naspers established a joint venture with Schibsted in four key emerging markets, including Brazil merging two large classifieds sites. Schibsted Media Group is a Norwegian media group with operations in 29 countries, with a profile similar to Napster's profile: originating from the newspaper industry and diversifying in e-commerce since the 90s (mostly through acquisitions).

Corporate structure

Although, it should be better documented and would require further research, it seems that during his first and early second period the company concentrated on its domestic market, South Africa. After the success and the growth of its TV endeavours in Africa, the group started expanding out of Africa with a focus on e-commerce and global platforms while still expanding its broadcast operations as well as its print media businesses (regrouped and branded under the Media24 umbrella since 2000). Naspers' strategy was to expand into fast-growing emerging markets, considering it has pinned its future growth on investments in Brazil, Russia, China, India and Africa. Naspers owns big stakes in diversified businesses that either dominate their markets or promise to do so.

The company stressed having deliberately shifted away from a geographic model by reorganising its global operations into functional segments (see figure below).

Internet and Ecommerce platforms (classifieds, etailing and payments)

The operations include:
- Classifieds: with presence in many markets with a focus on 25 markets (including Brazil, India, Poland, Portugal, UAE, Indonesia, Thailand, Philippines and South Africa). Revenues from classifieds include listing and promotional fees.
- Etail: operations in Central and Eastern Europe, India, UAE, Russia, Turkey and Nigeria. Revenues from etail platforms are derived from the sale of products and goods held in inventory, as well as those on consignment.
- Marketplaces: Allegro (Poland) and Ricardo (Swiss).
- Online comparison shopping – brands such as Buscapé, 7Pixel, PriceCheck, Heureka and Ceneo.
- Payments: online payment platforms in 18 countries operating under the PayU brand. Solutions are available to consumers on their own ecommerce platforms, as well as ecommerce platforms operated by third parties.

Online services: travel services (India), real estate (SA, Russia, Philippines), mobile services (Brazil).

Naspers - Corporate structure
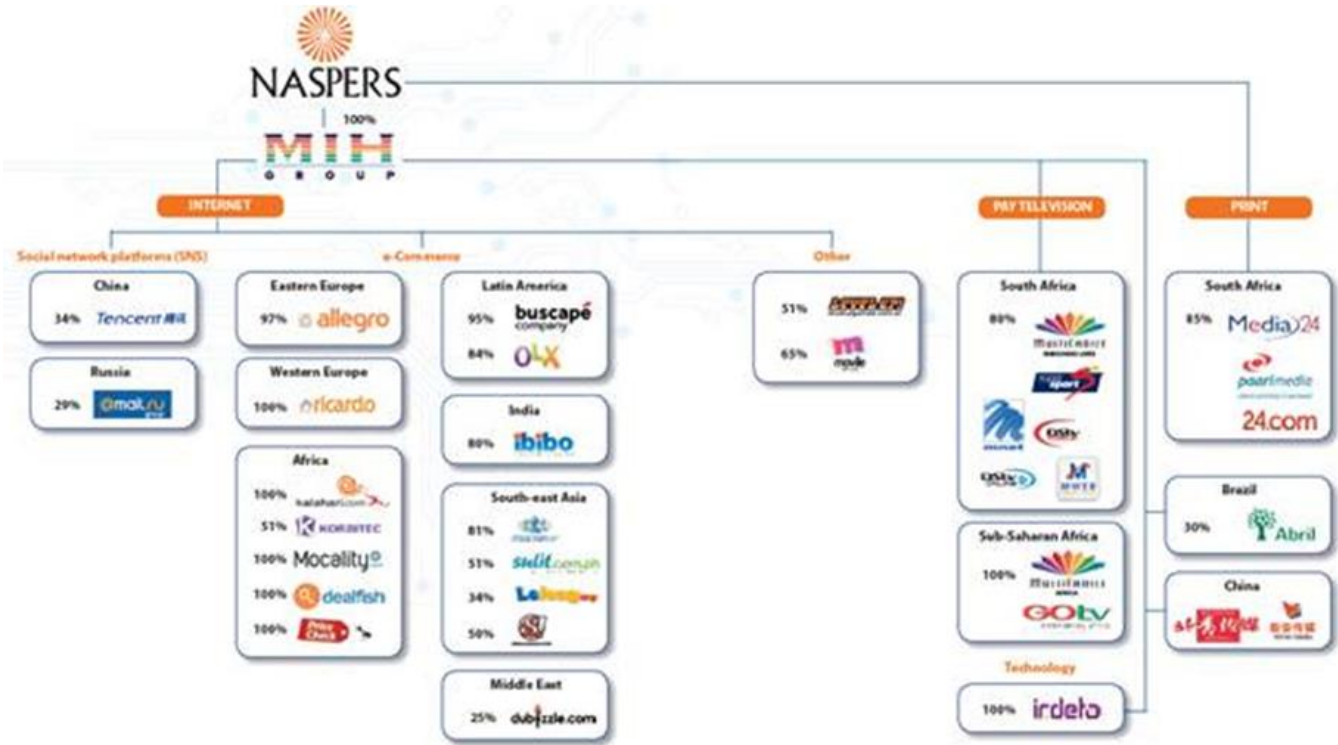
Source: Annual report (2015).

Pay-TV

Pay-tv services are provided to more than 8 million households in 50 countries across sub-Saharan Africa under the MultiChoice, DStv and GOtv brands. With limited broadband infrastructure and almost no cable access in Africa, Naspers offers digital satellite (DTH), digital terrestrial (DTT), online and mobile pay-tv services.

M-Net provides general entertainment content and SuperSport, the largest funder of sport on the African continent. TV advertising is handled by DStv Media Sales and DStv Digital Media focuses on the development of online and mobile products.

Main operations include:
- MultiChoice: Leading provider of pay-television services, including mobile, under the DStv and GOtv brands, serving over 8m households in 50 African countries.

- Arrow GOtv: Leading provider of DTT pay-television services in Africa with operations in eight countries and 92 cities.
- Arrow M-Net: General channel provider, sourcing content from international content owners and commissioning local productions.
- Arrow SuperSport: Premier funder and broadcaster of sporting content across the African continent.
- Arrow MWEB: Internet service provider in South Africa.
- Arrow Irdeto: Global provider of content security management and delivery for pay-media companies.

Print media

This segment comprises online news, magazines, newspapers, printing, distribution and book-publishing businesses in South Africa, plus some minority print media investments in Brazil and China. Principally based in South Africa, Media24 is the leading media group in Africa.

Main operations include:

- Media24: online news, newspapers, magazines and digital publishing, as well as printing, distribution, book publishing and ecommerce. Most of these businesses are market leaders.
- Arrow 24.com: Leading digital publisher in Africa.
- Arrow Paarl Media: Leading print and related services provider, focused on educational and retail markets in Africa.
- Arrow Book publishing: Market leaders in some sectors include Via Afrika Publishers, Jonathan Ball Publishers and NB Publishers.

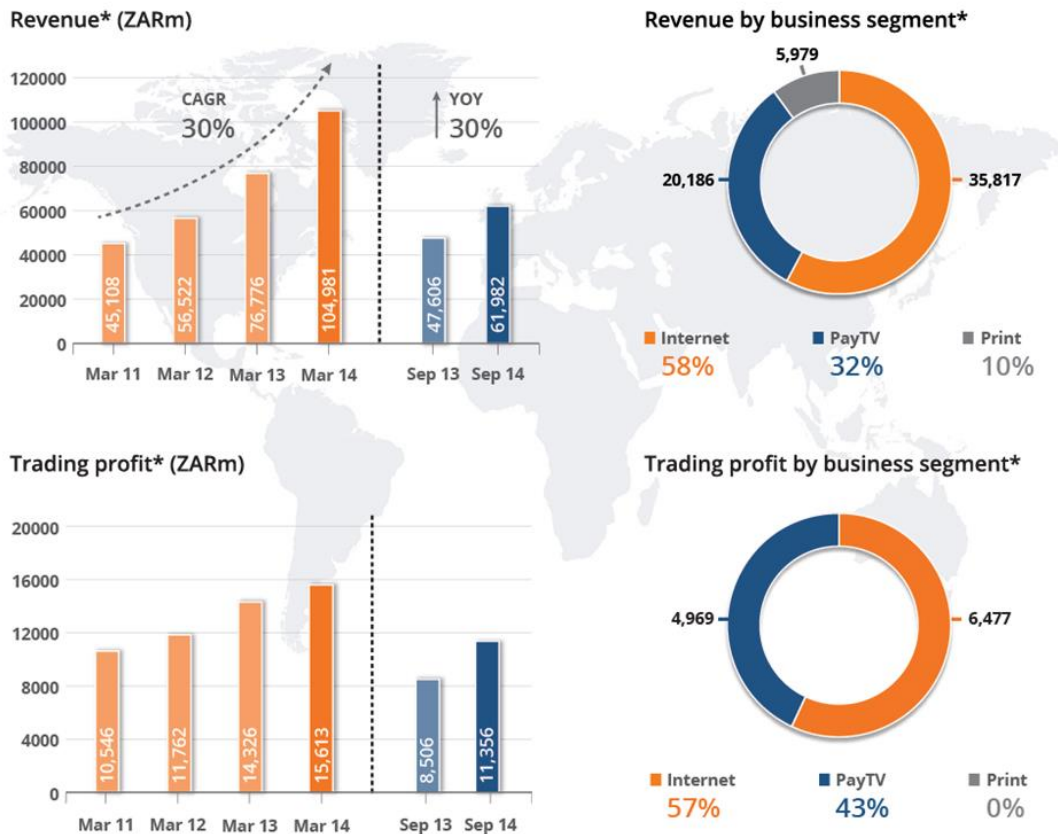### **Financial data, business model, and founders.**

As the Naspers group is highly diversified seeking a business model is not very relevant as various segments display different business models. As noted, the group operates predominantly in markets with growth potential as illustrated with its smart early investments in Tencent, and the most recent one in Flipkart.

The internet segment is now the fastest growth area. The revenues from this segments accounted for 54%[39] in the financial year 2014 (see following figure). In its annual reports the groups clearly explains how it is betting on emerging markets and all the set of Internet services they have started. Revenues measured on an economic interest basis, including the proportionate contribution from associates and joint ventures, expanded 30% year on year (YoY). With the group's ecommerce and internet businesses growing ahead of pay-television and print, 72% of group revenues are now earned offshore.

In 2014, the group had revenues of EUR 105 billion and a market cap of EUR 64 billion. The group, contrary to most companies presented in this report, is distributing dividends to its shareholders.

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[39] See figure on next page, which gives 58% but the 2014 annual report gives 54% after deconsolidation.

Naspers - Growth of revenues 2011-2014 and distribution of segments

Revenue* (ZARm)

CAGR 30% YOY 30%

	Mar 11	Mar 12	Mar 13	Mar 14	Sep 13	Sep 14
Revenue	45,108	56,522	76,776	104,981	47,606	61,982

Revenue by business segment*

5,979
20,186
35,817

- Internet **58%**
- PayTV **32%**
- Print **10%**

Trading profit* (ZARm)

	Mar 11	Mar 12	Mar 13	Mar 14	Sep 13	Sep 14
Trading profit	10,546	11,762	14,326	15,613	8,506	11,356

Trading profit by business segment*

4,969
6,477

- Internet **57%**
- PayTV **43%**
- Print **0%**

The issue of leadership for a group founded in 1915, although relevant per se, is not comparable to what founders can mean for start-ups. However, Koos Bekker is credited of having led the diversification of the group over the last 30 years. The new CEO, Bob van Dijk, appointed in April 2014, headed the ecommerce operations, graduated in econometrics from Erasmus University Rotterdam and Insead (France).

Key words: diversification, global platform operator global platform operator success story in newspaper, fast-growing emerging markets.

Source:

http://www.wsj.com/articles/naspers-offers-tencent-and-changeheard-on-the-street-1417511256

http://www.naspers.com/our-history.html

Naspers fact sheet January 2015, www.naspers.com

http://www.naspers.com/pdf/agm/2014/Naspers-AGM-2014-results-announcement.pdf

www.schibsteddigital.com

Teer-Tomaselli, R., Wasserman, H., De beer, A.S., (2007), "South Africa as a regional media power", in *Media on the Move. Global flow and contra-flow*, Daya Kishan Thussu (ed), Routledge, London, 2007, pp.136-145.

Naspers - Allegro (Poland, 1999)

Reconstructing Allegro's history is not exactly straightforward as the company was acquired several times, directly or indirectly. Founded in 1999, the following year, in March 2000, it was purchased by the online auction site QXL Ricardo, a company founded the same year; QXL was soon acquired by Tradus which in turn was acquired by Naspers in 2008 (100%), a South African multimedia group originating from the newspaper industry (See case study). Tradus was subsequently delisted from the London Stock Exchange and the group reorganised into Allegro and Ricardo.

Allegro is a privately held company, founded in 1999, headquartered in Poznan (Poland) with around 1000 employees, which owns and operates over 100 ecommerce-related websites in Central and Eastern Europe. Its 40 million users generate more than 500 million page views per day. The revenues are not publicly available as Naspers, the holding company, does not break down its commerce revenues by companies. [40] However, for 2014, Naspers indicates revenues from their ecommerce of EUR 1.5 billion.[41] The 2014 Naspers annual report mentions also an "improved profitability" for the Allegro marketplace business which suggests some room to improve.

The Allegro group comprises auction and fixed-price transaction platforms, classifieds platforms (i.e. auto, real estate, jobs and travel classifieds), comparison and social shopping sites, as well as a payments platform. A number of these services operate across Poland, Czech Republic, Slovakia, Hungary, Bulgaria, Romania, Ukraine, Latvia, Lithuania and Estonia. Allegro expanded its operations in these markets during the year, whilst consolidating its position in Russia, where it co-owns Molotok with mail.ru, another company owned by Naspers. The latter is the number one transaction trading platform in that market. In Hungary Allegro obtained a 100% interest in Teszvesz, a transaction platform, and acquired Vatera (an online auction platform). Allegro Group currently manages 75 sites in 17 countries on 3 continents. The Allegro Group includes: Allegro.pl, Bankier.pl, Fashion Days, Ceneo, Cokupic.pl, iStore, OLX.pl, otoDom, otoMoto, PayGSM, Allegro, Sendit.pl.

The group further expanded and consolidated after being bought by Naspers for GBP 946 million (EUR 1,289 billion). For instance, in 2011, Allegro signed an agreement to acquire 100% of Slando, Russia's third largest general classifieds business and market leader in Ukraine. In addition, Allegro acquires 80% of the largest Turkish private sales fashion club, Markafoni. That same year, Allegro acquired 90% of Fashion Days, a leading private sales club in Central and Eastern Europe.

Allegro in Poland controls more than 50% of ecommerce traffic, the company is also active in the classifieds arena – otomoto.pl – biggest car advertising service in Poland, otodom.pl, allewakacje.pl, otopraca.pl, and payment services platnosci.pl. It is also a leading player in Eastern Europe, with operations in Czech Republic, Slovakia, Hungary,

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[40] Only Tencent and Ru, as listed companies appear.

[41] Most of these revenues should come from the two companies, Allegro and Ricardo. That may amount to revenues around EUR 1 billion for Allegro. In 2010, the Naspers annual report indicated that 156.8 million items were sold with a gross merchandise value of PLN 8 billion (R 20.8 billion; EUR 1.56 billion), generating PLN 664.5 million (R 1.7 billion; EUR 128 million) in revenues. The latter gives a de minima assessment.

Bulgaria, Romania, Ukraine, Latvia, Lithuania, Estonia, Russia, Belarus, Kazakhstan and Serbia.

***European Allegro sites*:**

Czech Republic - Aukro.cz

Hungary - Vatera.hu (Other Allegro sites in Hungary: TeszVesz.hu, Grando.hu, Arukereso.hu, Lealkudtuk.hu, OLX.hu)

Russia - Molotok.ru

Ukraine - Aukro.ua

Bulgaria - Aukro.bg

Belarus - Allegro.by

Romania - Former site Aukro.ro (Other Allegro sites in Romania: OLX.ro, FashionDays.ro, Autovit.ro)

Poland - Allegro.pl

Slovakia - Aukro.sk

Kazakhstan - Allegro.kz

Serbia - Allegro.rs

Sources:

http://www.allegro.pl

http://en.wikipedia.org/wiki/Allegro_(auction_website)

http://www.naspers.com/page.html?pageID=20&parentID=70&contentIDChosen=102&operation=allegro

http://financialresults.co.za/naspers_ar2009/internet.htm

http://www.naspers.com/our-history.html

Naspers – Ricardo (Switzerland, 1999)

ricardo.ch was founded in November 1999 under the name of auktion24.ch SA (an on-line auction platform) in Baar (Switzerland) and became part of the Naspers group in 2008. In November 2000, Ricardo merged with QXL, a company founded in London in 1997 by Financial Times journalist Tim Jackson. The new company was named QXL Ricardo and remained based in London. The company almost went bankrupt in 2000 when the dotcoms bubble burst. It shares lost 99% of their value. The situation improved a lot afterwards and the company was ranked among the best performing on the London Stock Exchange. In 2007, after a sharp rise in the company's share price, the company announced that it had received a preliminary approach from a potential bidder. The name was changed to Tradus plc. Then the new company was bought at GBP 18 per share, valuing the company at some GBP 946 million. The acquisition of Tradus by Naspers was concluded on 7 March 2008. The company was delisted from the London Stock Exchange. As of February 2015, the Swiss group Tamedia announced it was going to acquire the Ricardo Group for CHF 240 million.

The Ricardo Group operates leading online marketplaces in five Western European countries, namely Switzerland, Denmark, Norway, Italy and Greece, under the websites ricardo.ch, autoricardo.ch, shops.ch, ricardolino.ch, qxl.dk, qxl.no and ricardo.gr. The group provides auctions, fixed-price marketplaces, classifieds (general and auto) and price-comparison sites. All operations are run on a single technology platform, with local marketing, sales and product groups in each territorial market.

The Ricardo Group's headquarters are in Zug (Switzerland). It has 190 employees in Switzerland and a development team of 30 people in France. The group's revenue was around CHF 40 million in 2014 (around EUR 38 million). With a highly profitable core business, Ricardo invested significantly into the growth of the new units olx.ch and autoricardo.ch as well as the launch of ricardoshops.ch. Its website gives 2.3 million members and 370,000 visitors per day for ricardo.ch, and sales of CHF 660 million over its network.

Sources:

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http://financialresults.co.za/2012/naspers_ar2012/pr-fin-internet.php

http://www.ricardo.ch/

http://www.ricardo.ch/ueber-uns/

http://www.tamedia.ch/en/media-centre/press-releases/2015/pressrelease/tamedia_acquires_ricardo_group

Rocket Internet (Germany, 2007) - Routine launcher of new companies


A brief corporate history

Oliver Samwer (CEO) founded the Berlin-based company in 2007.

The company describes itself as a global network of companies (see figure below, as of 2014, 114 were consolidated in the group financial statement) focusing on online business models across four sectors:

- e-commerce: e-Commerce companies include retail companies in the areas of fashion, general merchandise, home and living, office supplies, food and groceries.
- marketplaces: marketplace companies seek to displace traditional supply chains by creating venues where buyers and sellers can transact directly. They include real estate and car online classifieds, travel and transport, and food delivery companies.
- financial technology: financial technology companies facilitate payments, bring together borrowers and lenders in regions and segments that are underserved by traditional banks. They serve the consumer and small and medium-sized enterprises.
- travel: travel companies seize opportunities in the rapidly growing online travel and transport sector. They focus currently on vacation packages and online travel booking.

The German start-up has set up the goal of being "*the home screen of the world*", and "*to become the world's largest Internet platform outside of the United States and China*". One of its mantras is "*relentless focus on being early*" (quoted by Millward, 2015a) For the exclusion of China, Millward (2015b) reports that the company had crashed out of China in the past couple of years in the face of strong local competition. Millward (2015a) considers that Rocket facing a similar strong local competition in India may exit the country.

Rocket Internet - A global network of companies
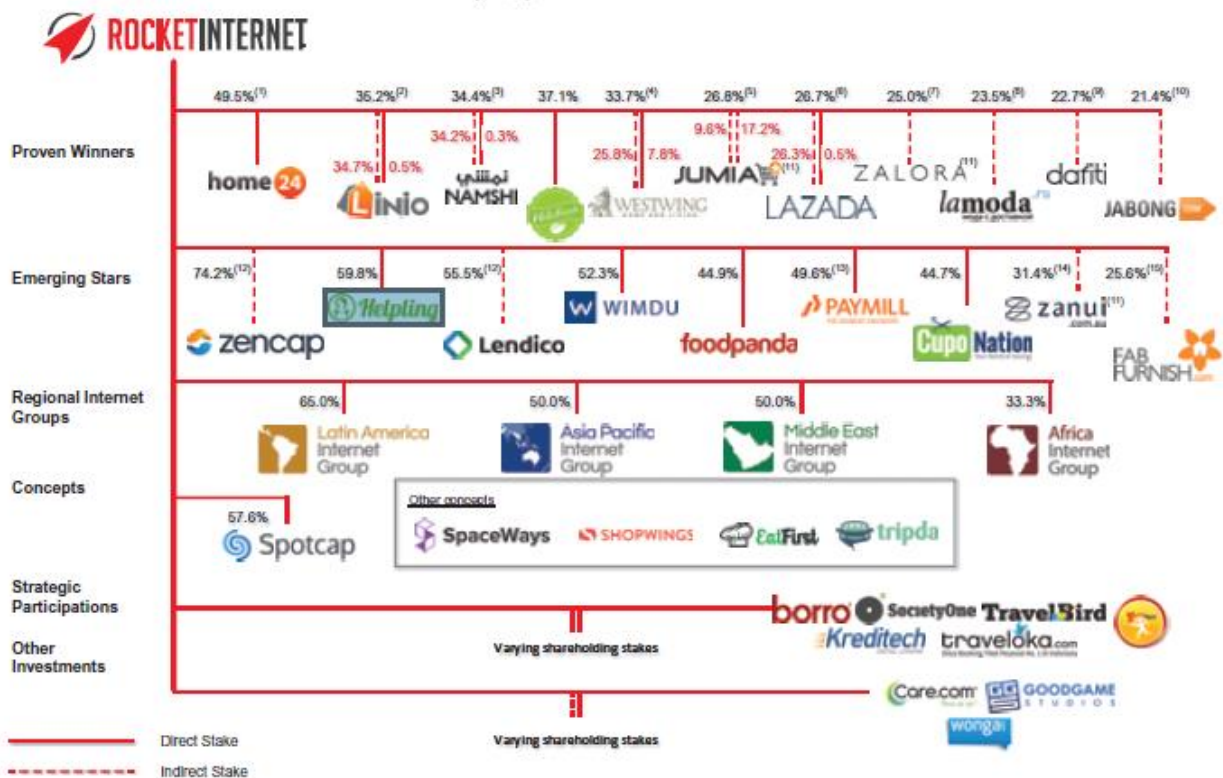
Source: company's IPO prospectus (2014).

Currently, the company targets a market with 5.4 billion potential customers in all countries other than the United States and China. Rocket has now under what is described ambiguously as a "ground force", more than 30,000 employees across its network of companies (see figure below), which are active in more than 110 countries across six continents. Its IPO prospectus (2014: 74) indicates a much lower average number of 1,282 employees in 2013, out of which 985 were located outside of Germany.

Rocket Internet - Distribution of the "ground force" of the network of companies
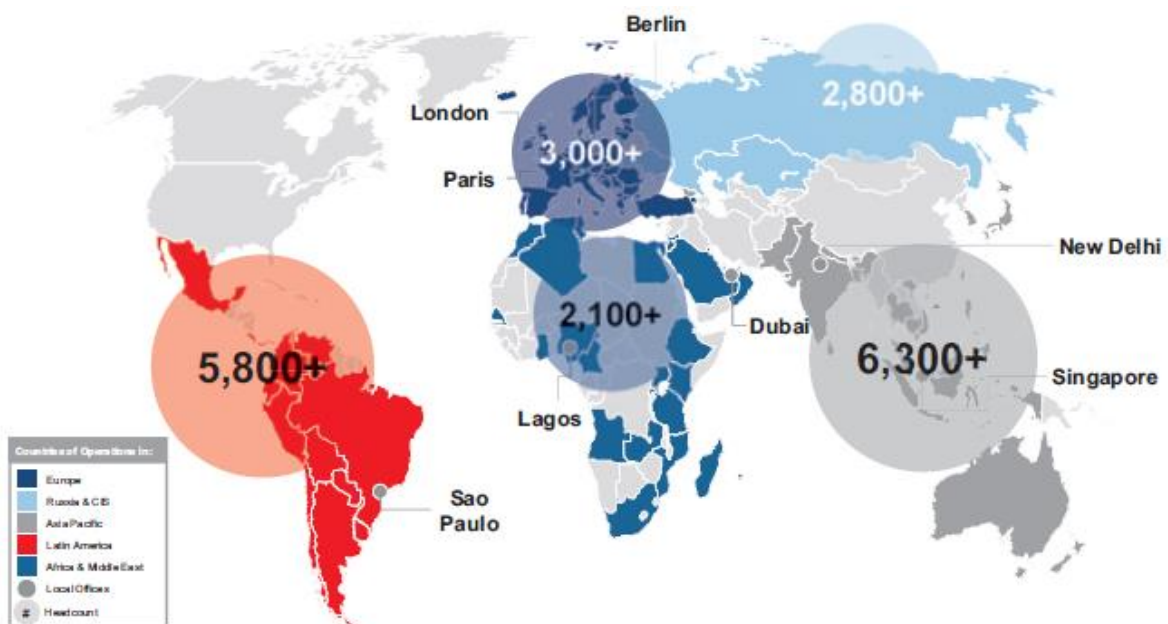
Source: company's IPO prospectus (2014: 103).

Their most mature companies, described as "proven winners" generated in 2013 aggregate net revenues of EUR 757 million (unaudited sum), and aggregated net losses of EUR 442 million (IPO, 2014: 2). Rocket's 13 core sites, the "proven winners", are growing but do not seem to be profitable, as according to Millward (2015a) spending growth outpaced revenue growth in this model. EBITDA has been negative since 2013 for this set of companies.

The IPO prospectus gives EUR 137.9 million of revenues for the year 2013 for the holding company. In May 2015, Rocket Internet announced EUR 104 million of revenues and bottom-line losses of EUR 20.2 million in 2014, following a net profit of EUR 174.2 million in the previous year on the back of the sale of shares from Zalando, an online fashion retailer (DW, 2015, Rocket Internet Press Release May 2015). Users and revenue growth looks at the main priority of the group.

Business model

The business model involves routine launches of new companies with a direct or indirect stake of 80% to 90% in the company at the time of launch. The company identifies and builds proven Internet business models and transfers them to new, underserved or untapped markets where it seeks to scale them into market leading online companies. The company will appoint three key people in each country to start a business: a CEO, a CFO, and a COO: the CEO to build the team, to do the marketing, and to drive sales, the CFO to manage the revenue growth and cash burn, and the COO to manage storing and delivery (Parr, 2016). Parr adds: "*All three people have the same background. They come from the companies like McKinsey, Goldman or another top company…. and are always around 30-years-old or less*".

The company is building on the growth of the smartphone markets, and betting on the younger segment of the population as well as on the emergence of middle-classes in these markets[42]. Frankfurt-listed Rocket Internet, the firm closest to Naspers in its sprawling portfolio of emerging-market e-commerce assets, brings a premium to its parts. However, unlike Rocket, Naspers owns big stakes in diversified businesses that either dominate their markets or promise to do so. Rocket has announced it is aiming to scale up its businesses to the number one position.

To implement their global strategy, the company created Regional Internet Groups in Africa, Asia Pacific, Latin America and the Middle East in order to bundle local market and business model insights, facilitate regional commercial, strategic and investment partnerships, in particular with mobile telecommunication providers, enable local recruiting and sourcing and accelerate the regional rollout of its companies, the build-out of local supply chain and logistics networks in emerging market economies across the globe. In Asia where the company already has more than 20 start-up ventures operating, Rocket announced, in September 2015, that its Asia Pacific spin-off Asia Pacific Internet Group (APACIG, a joint-venture with Qatari telco Ooreedo, in which Rocket has a 50% stake), is going to launch one new company per quarter in the continent (Millward, 2015b).

The company builds its own infrastructure to support each step of the e-commerce model, operate its own warehouses, its own last-mile delivery fleets and its own private labels. The company claims being a builder not an investor, building not only online companies but also building infrastructure companies underneath.

To bring together the different elements of the puzzle (see first figure in this section) of companies, the company developed a unique platform to systematize, to systematize and accelerate the process of identifying, building and scaling Internet companies. The company claims that as industries mature, the value is in the platform. This platform rests on four pillars:

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[42] This has been the strategy of Xiaomi for the Chinese market with outstanding results (see case study).

- Global infrastructure: this global infrastructure supposedly enables the company to quickly build companies in complex markets at low marginal cost.
- Standardized processes: with a set of unique standardized processes that allows to build and scale new companies in a repeatable and scalable way, i.e. new companies can be launched in less than 100 days.
- Proprietary technology: to supply plug-and-play solutions.
- Networking: sharing best practices and leveraging synergies across its network.

Financial data and Founders

Rocket Internet launches new companies with its own funds and initiates financing rounds, typically with third-party equity contributions, at a later stage in the development cycle. The total investments in equity capital of a new company have generally been in the range of EUR 0.5 million to EUR 2.0 million. These new businesses typically do not generate revenues for the first three to four months of their operations. During the period, 2011-2013, 57 new businesses have been launched.

It took five years to the German start-up to reach the threshold of EUR 1 Billion. The company went through an IPO in September 2014. In its prospectus it pushes forward a EUR 2.6 billion valuation for the network of companies ("unaudited" though). Rocket Internet was Europe's largest venture-backed IPO of 2014, raising EUR 1.4 billion on the Frankfurt Stock Exchange.

As of September 2014, the major shareholders were the following (see figure below): Global Founders GmbH (holding of the founder), Emesco AB (Sweden), Companies Registration Office (SCRO), United Internet Ventures AG (Germany), PLDT Online Investments PTE. LTD (Singapore), and European Holdings (Luxembourg). The Kinneviks[43] invested in Zalora and now own 25% of Rocket (Parr, 2016).

Rocket Internet - Chart of the major shareholders.
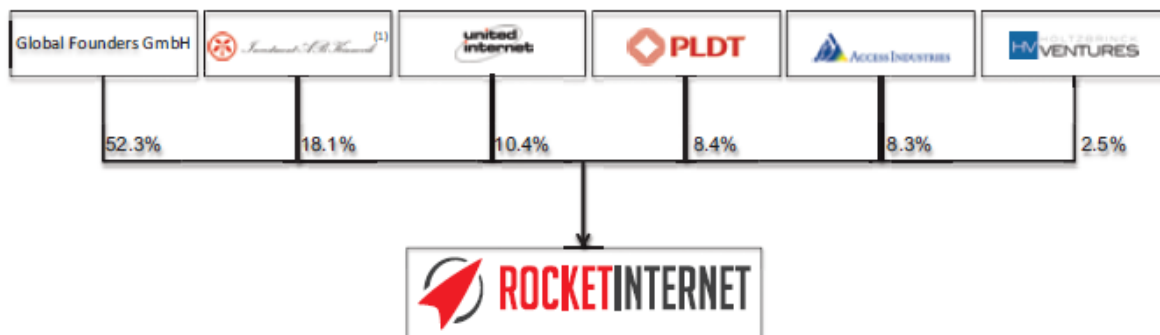
Source: company's IPO prospectus (2014: 177)

The company is highly controversial: "*Rocket Internet is one of the most hated yet successful tech companies in the world*" (Parr, 2016). As explained by Parr: "*the business strategy is to fund clones of Silicon Valley start-ups then grow them at lightning speed in European, South American, and Asian markets. Once Rocket Internet dominates a market, they sell the start-up to the company they cloned it from*". This cloning strategy triggers critiques.

O. Samwer holds a degree in business administration from WHU, Otto Beisheim School of Management. Upon graduation, Oliver and his two brothers founded Alando.de in 1999. After the sale of Alando.de to eBay Inc., he became Managing Director of eBay, responsible for Germany, Switzerland and Austria. In 2000, again with his two brothers

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[43] Investment AB Kinnevik is a Swedish investment company founded in 1936.

founded Jamba! AG, which was acquired by Verisign Inc. in 2004. In 2007, he founded Rocket Internet apparently without his two brothers.[44]

Key words: emerging markets, global network of companies, routine company launch, unique technological platform.

Source: https://www.rocket-internet.com/about

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[44] This statement varies according to the source, but the three brothers are running the company.

Shazam (UK, 1999): Music recognition

A brief corporate history

Shazam was founded in 1999[46] by Dhiraj Mukherjee, Chris Barton, Philip Inghelbrecht, and Avery Wang, as a dial-up service (see timeline) but really exploded with the launch of the app store. The app started as a music discovery service.

The company defines its mission broadly: "*Our mission is to help people recognize and engage with the world around them*". The UK start-up claims to have been a pioneer in audio recognition technology that helps people identify music and has grown into an app that connects people with artists, TV shows, ads, cinema and radio. Shazam allows people to share their discoveries on Facebook, Twitter, WhatsApp, Pinterest and Google+. And to purchase through iTunes, Amazon and Google Play. It is available for free on every major platform and can be found on iTunes App Store, Google Play, Amazon App Store, Windows App Store and other app stores. Shazam has agreements with mobile operators and boasts more than 180 million users. Through international licensing agreements, the company's service is available in Australia, Germany, Greece, Japan, the UK, and the US, among other countries.

The company went through the following steps:

- 2002: Dialling "2580" on a phone and holding it up to the music. Users were then sent an SMS message telling them the song title and the name of the artist.
- 2008: Shazam was one of the first apps in the brand new Apple App Store.
- 2011: In addition to music, the app was extended to "Shazam" TV programmes and ads to get special offers and more information on what customers were watching.
- 2015: Shazam announced a partnership with Gimbal, which produces context awareness, proximity and personalisation technology, to enable brands and advertisers to provide a more personalised experience to Shazam users.

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[45] Shazam!" is a song written by Duane Eddy and Lee Hazlewood and performed by Eddy. The song reached #4 on the UK Singles Chart and #45 on the Billboard Hot 100 in 1960.The Shadows released a version of the song in 1963 as the B-side to their single "Geronimo".[3]

[46] According to CNBC, Crunchbase indicates 2002 and headquarters located in New York, although the revenues have been filed in the UK, the table on the next page gives figures in GBP. Crunchbase mentioned however that the concept of Shazam came along at the end of 1999.

Shazam Entertainment Limited
GROUP PROFIT AND LOSS ACCOUNT
For the year ended 30 June 2013

	Note	Year ended 30 June 2013 £	Year ended 30 June 2012 £
REVENUE	1	31,017,466	21,806,832
Cost of sales		(2,758,058)	(2,349,259)
Gross profit		28,259,408	19,457,573
Recurring administrative expenses		(28,985,803)	(22,388,209)
Share based payment charge	17	(394,831)	(39,971)
Total administrative expenses		(29,380,634)	(22,428,180)
OPERATING LOSS	2	(1,121,226)	(2,970,607)
Interest receivable and similar income	3a	58,162	119,284
Interest payable and similar charges	3b	(214,898)	(126,605)
LOSS ON ORDINARY ACTIVITIES BEFORE TAXATION		(1,277,962)	(2,977,928)
Tax on loss on ordinary activities	5	(701,263)	(347,487)
LOSS FOR THE FINANCIAL YEAR	14	(1,979,225)	(3,325,415)

Source: Dredge (2014) Music Ally.

The business model

The company's tool recognizes music and media playing around users and identifies the song or offers more information about the media. Users simply tap the Shazam button on their phone to listen, buy, share and comment on the media. There is no charge, and users can utilize the tool as often as they would like. Users receive the name of the track and the artist and information such as lyrics, video, artist biography, concert tickets and recommended tracks. Users can buy or listen to the song using one of the company partners' services

Shazam sells between 5% and 10% of all downloaded music, for which it gets a revenue share. In 2013 that worked out to more than 300 million songs sold. Shazam has been downloaded over 500 million times, is downloaded over 13 million times a month, and has over 100 million monthly active users. According to the company, it took 10 years to reach 1 billion tags, 10 months to reach 2 billion, 3 months to go from 10 to 12 billion. It has launched new capabilities for print ads, QR codes, packaged goods and barcodes and also integrated with Spotify and Radio to let users play music within the app.

After building its business model on apps able to identify music, Shazam expanded into the TV and advertising markets. This expansion into TV was meant to drive revenues higher, as it ran campaigns to get people tagging TV ads for more than 140 brands.[47] This stream of revenue was to become the "primary revenue stream very quickly".

Financial data

Shazam benefited from the backing of a number of well-established VC firms including Kleiner Perkins Caufield & Byers, Institutional Venture Partners, DN Capital, Acacia Capital Partners. Shazam raised funding of USD 32 million in June 2011, led by VC firms Kleiner Perkins Caufield & Byers and Institutional Venture Partners.

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[47] According to Shazam's EVP of marketing David Jones (quoted by Dredge, 2014).

Shazam paid USD 22.7 million (around GBP 14 million) for "certain core IP", to Broadcast Monitoring Inc in November 2011 for the intellectual property rights to its audio recognition technology using a mixture of cash, issued shares and issued loan stock.

In July 2013, it raised USD 40million from Latin American telco America Movil as part of a deal designed to drive awareness and usage of Shazam in the region. USD 20 million of that was invested in new shares issued by Shazam, while the telco also bought secondary stock from existing shareholders.

In March 2014, Shazam raised another USD 10 million from selling more new shares to Clifton Capital and one other unnamed investor. In January 2015, Shazam closed a USD 30 million investment to support growth, making it the fifth UK tech start-up to be valued at over USD 1 billion. To be noted, even if one can assume that since the last publicly available data on revenues in 2013, the company may have followed the same growth pattern, it remains a significant discrepancy between the revenues and the valuation of the company. Nevertheless, it looks like the company does not face huge issues to raise capital.

The venture doesn't report financial figures, but CEO Rich Riley told CNBC that the company has revenues in the "tens of millions" of dollars. However, in 2011 Shazam published[48] its financial results for the year ending 30 June 2011, revealing a year-on-year revenue growth of 47.3%. Shazam posted revenues of GBP 15.6 million for the year 2011, up from GBP 10.59 million in the year ending 30 June 2010, according to its filing with Companies House in the UK. The company did not turn a profit for the year, although its net losses narrowed from GBP 0.35 million to GBP 0.28million in the same period (Dredge, 2012, Music Ally). Fiscal year 2013 saw revenues rise to GBP 31 million while losses narrowed to GBP 2 million (see table below, Dredge, 2014 Music Ally). As of 2014, according to Hoovers (2015), the company reached a turnover of GBP 91,133 million, which raises a question mark about this figure as it represents a highly significant increase over 2013.

Founders

Three of the co-founders left: Chris Barton, former CEO, for Dropbox, Philip Inghelbrecht serves as the Head of Business Development for RockMelt, and Dhiraj Mukerjee serves as the Head of Banking Innovation for Virgin Money in the United Kingdom.

C. Barton had also worked at Microsoft, News Corp, San Francisco Consulting Group, and LEK Consulting. He holds an MBA from UC Berkeley, a Master's degree in Finance from Cambridge University, and a BA from UC Berkeley. P. Inghelbrecht went to the Haas Business School at University of California Berkeley. Mukerjee graduated from Stanford University.

Avery Wang, remaining co-founder and chief scientist, has over 20 years of industry experience designing high-performance multimedia signal processing systems for the consumer market and is the principal inventor of Shazam's recognition algorithms and other key technologies. Avery holds graduate degrees in Electrical Engineering and Mathematics from Stanford University, with a PhD at CCRMA on Auditory Source Separation. He also studied Computational Neurosciences on a Fulbright scholarship to Germany.

Andrew Fisher, Executive chairman, joined Shazam from InfoSpace Inc where he was European Managing Director. At InfoSpace Andrew led the company's significant European growth focusing on music and entertainment services for mobile operators and portal solutions for online service providers. Over the past 14 years, Andrew has led a number of technology focused enterprises. He founded and was Managing Director of TDLI.com which was acquired by InfoSpace Inc with an enterprise value of USD 400 million and was General Manager of Thomson Directories Business Ventures.

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[48] Financials published through Companies House in the UK.

Rich Riley, CEO, joined Shazam with more than 17 years' experience as an entrepreneur and leading Internet executive. Most recently, Rich was EVP Americas for Yahoo! where he was responsible for billions of dollars of revenue and managed a team of thousands, overseeing sales, account management, ad operations, B2B marketing, research and business development across the US, Canada and LatAm. Prior to that, Rich held a variety of roles including MD & SVP of the EMEA Region, SVP of the Small & Medium Business Division as well as corporate and business development roles.

Key words: audio recognition technology, app, revenue sharing.

Source: http://www.shazam.com/

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http://www.hoovers.com/company-information/cs/revenue-financial.Shazam_Inc.5598e262181a4cf5.html

http://www.google.com/finance?cid=2465252

Spotify (Sweden, 2006): The rise of streaming music

A brief corporate history

Spotify was founded in 2006 by Stockholm born Daniel Ek and Martin Lorentzon and launched for public access in October 2008. Spotify is a Swedish streaming digital music service,[49] headquartered in London, offering on-demand access to a library of over 20 million tracks offering, as an alternative to downloads. Spotify offers unlimited access to this library for USD 10, EUR 10 or GBP 10 a month. The company also offers free trial subscriptions, supported in part by advertising, in an attempt to attract users to the service and convert them into paying customers. Spotify is currently available in 58 markets:[50] with over 60 million active users[51], and over 15 million paying subscribers. In December 2013 the company made its service available for free on mobile and tablet. The music service created over 1.5 billion playlists so far and is adding over 20,000 songs per day. Over 30 million songs are available.

Since its launch in Sweden in 2008, Spotify has driven more than USD 2 billion to rights holders. Spotify claims to be already the second biggest source of digital music revenue for labels in Europe (IFPI, 2011) and "*the biggest and most successful music streaming service of its kind globally*" (company website, 2014). In 2011, the company inked a partnership with Facebook that boosted its number of users.

The business model

In a blog posted on his company website, CEO Daniek Ek explains how they decided of their business model. Before the launch of the company, there were two economic models for streaming services: all free or all paid. They deemed that both models had a fatal flaw. The paid-only services never took off and obviously free services, with some on the verge of piracy, were not generating any revenues for artists and labels. As D.Ek sums up nicely: "*Paid provided monetization without scale, free reached scale without monetization*".

Therefore, they opted for a combination of the two aspects: pay and free under the "freemium" model. They "*believed that a blended option – or 'freemium' model – would build scale and monetization together, ultimately creating a new music economy*". The idea was to lure in customers with an advertising supported free tier, betting that eventually customers will be willing to pay for the music, free service driving the paid service. The bet seems to have worked out for mobilizing free customers, as more than 80% of their subscribers started as free users. In 2014, Spotify had more than 50 million active users of whom 12.5 million are subscribers each paying USD 120 per year. D.Ek

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[49] The company relies on the European software expertise using Vorbis for audio compression technology.

[50] Andorra, Argentina, Austria, Australia, Belgium, Bolivia, Brazil, Bulgaria, Canada, Chile, Colombia, Costa Rica, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, El Salvador, Estonia, Finland, France, Germany, Greece, Guatemala, Honduras, Hong Kong, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malaysia, Malta, Mexico, Monaco, New Zealand, Netherlands, Nicaragua, Norway, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Singapore, Slovakia, Spain, Sweden, Switzerland, Taiwan, Turkey, UK, Uruguay and USA.

[51] Users active within the previous 30 days.

stresses that "*the majority of these paying users are under the age of 27, fans who grew up with piracy and never expected to pay for music*". One should add that is was also betting on the willingness of consumers to move from ownership (records, DVDs) to access

However, some experts remain sceptical about the potential profitability, and they deem that the current business model for streaming music is "*inherently unprofitable*." (Andrew Sheehy from Generator Research, quoted by Brustein). The report released in 2013 by Generator Research stated: "*Our analysis is that no current music subscription service— including marquee brands like Pandora[52], Spotify, and Rhapsody—can ever be profitable, even if they execute perfectly*." (Brustein, 2014: 1). This pessimism may be grounded as the new company does not have the bargaining power of Apple or Amazon to change the contractual conditions for royalties. The conservative behaviour of the music recording companies has been reinforced as they faced substantial revenue losses in subsequent years, until 2012 when they benefited from a slight increase, the first since 1999 (IFPI, 2013). Indeed the company has been accumulating operating losses: EUR 21.9 million in 2010, EUR 43.1 million in 2011, EUR 80 million in 2012 and EUR 93.1 million in 2013 (Dredge, 2014).

As noted by Leurdjik et al (2012c: 93), the main strategic challenge for Spotify is to reach the point where it will become a profitable business, by building and securing a strong customer base, in combination with closing profitable license deals with all major music labels so as to derive the most of the economies of scale (a large music catalogue and consumer base). Scalability looks crucial indeed, as stressed by the CEO. However, in that particular case, scale does not seem to work anymore as the magic recipe: the advertising based free subscriptions are expensive for Spotify since they trigger fees to be paid to music rights holders whenever a track is streamed. The contracts are structured in such a way that about 70% of revenue go to royalties; any other costs of business have to be covered by what remains (including the transaction costs involved in negotiating the rights) (Brustein, 2014: 1). The question is then what is the threshold to reach for that 30% cut to generate enough revenues to pay the bills and post a profit.

In its presentation, the company explains that its "dream" is "*to make all the world's music available instantly to everyone, wherever and whenever they want it", making it "easier than ever to discover, manage and share music"…, "while making sure that artists get a fair deal*". However, streaming has been controversial among musicians from the beginning according to Brustein (2014: 2): some artists even refuse to make new music available through streaming services as they deem the revenues far too low compared to other sources. Others object to their music being given out for "free" (the much reported Taylor Swift controversy). This has also been the initial reaction of the recording industry that was getting more from downloads on iTunes that the proposed royalty per streamed song.

The business model that the Swedish start-up was aiming to develop (combining free and pay subscription, offering itemized music and playlists) may have a missing feature to become successful as long as one element of the equation is constant: the royalty fee. The music industry seems to be clinging to past business plans. It runs the risk of shooting itself in the feet, cutting itself away from a growing stream of revenues: gone customers may not come back at all.

On a more optimistic note, Garrahan (2015) stresses that around the world, "*demand for streaming services is increasing, rising more than 50%, with 164 billion songs streamed in the US alone in 2014*". Beats Music, Spotify's US competitor since early 2014 has recently been bought by Apple and that may open up the deals.

A recent report from AppAnnie (2015) on mobile music streaming sounds also more optimistic about the future of music streaming as whole, and about the particular case of

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[52] Like Spotify, Pandora also had a negative margin (Bain, 2014: 11).

Spotify. According to the consultancy, not only mobile music streaming is booming, but Spotify is leading the way worldwide in active users, downloads and revenue (see the figure below, and the following figure for Spotify's footprint). The report notes that "*Europe is home to three of the world's biggest streaming apps (Spotify, SoundCloud, and Deezer) that dominate the region's landscape*" (AppAnnie, 2015: 2). Spotify and SoundCloud (Germany) rank n°1 and n°2 for music streaming apps in most European markets (AppAnnie, 2015: 23).

Subscribers to music streaming services (2015)
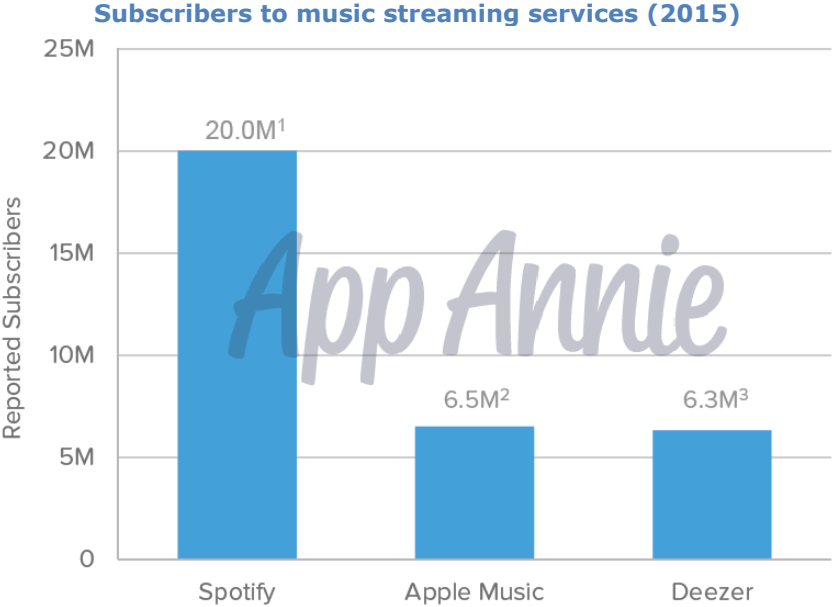
[1] Spotify blog post, June 2015.
[2] Apple CEO interview, October 2015.
[3] Deezer IPO filing, June 2015. Includes bundled subscribers.

Source: AppAnnie (2015: 5).

Spotify topped 9 of the 15 markets displayed in Figure 2, however the report stresses that local services challenge global domination as local players hold a key advantage. This is particularly the case in APAC markets, highlighting the importance of local content to acquiring and retaining users in the region: Tencent's QQ Music dominates the Chinese market, MelOn (and Kakao music in terms of downloads) leads in South Korea, and Deezer retains a lead in France.

Top Music Streaming App by Active Users, iPhone and Android Phone, Q3 2015[53]
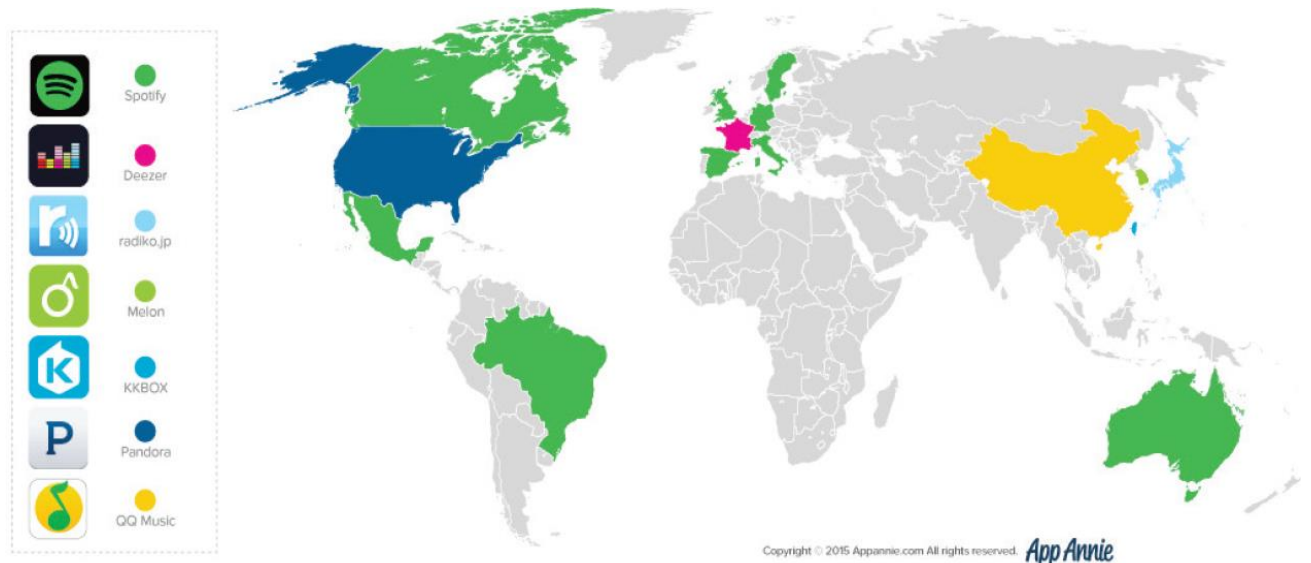
Source: AppAnnie (2015:14).

Financial data

The company reached the EUR 1 billion valuation after 5 years (Atomico Report). In 2012 Spotify valuation was estimated close to USD 4 billion for an estimated revenue of 900 million (Eldon, 2012). In 2012, Spotify's revenue grew to EUR 435 million, up from EUR 187.83 million in 2011. Statista (2015) gives, for 2013, revenues of EUR 747 million. However, this achievement in terms of growth and penetration does not translate into profit so far; since its foundation, the social network accumulated a net loss of USD 200 million (Brustein, 2014: 1).

In 2014, Spotify hired Goldman Sachs to raise about USD 500 million (Garrahan, 2015). Spotify's investors include Sean Parker, the founder of Napster, and Technology Crossover Ventures, the Silicon Valley investment firm that led its most recent fundraising at the end of 2013, when it secured USD 250 million. Record labels Universal Music Group and Sony Music also own shares in Spotify. In 2015, the company was setting up its seventh round nearing a deal to raise USD 400 million in a round valuing the music-streaming service at USD 8.4 billion (McMillan and Demos, 2015).

Founders

Prior to Spotify, Daniel Ek (CEO) founded Advertigo, an online advertising company acquired by TradeDoubler, having previously held senior roles at Nordic auction company Tradera (acquired by Ebay). Daniel was also CTO at Stardoll, a fashion and entertainment community for tweens.

Martin Lorentzon (chairman of the board) first struck up his partnership with Daniel Ek when Tradedoubler, Europe's largest affiliate sales network (founded by Martin), acquired Advertigo in 2006. Previously, he held senior roles at Telia, Altavista, Cell Ventures and NetStrategy. He is currently on the TeliaSonera board.

Key words: freemium, itemized music and playlist, streaming.

Source: www.spotify.com

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[53] Excludes pre-installed apps. Quarterly data calculated as straight average of component months. China data is iPhone only.

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Tencent (腾讯) (China, 2001): The rise of the chubby penguin empire
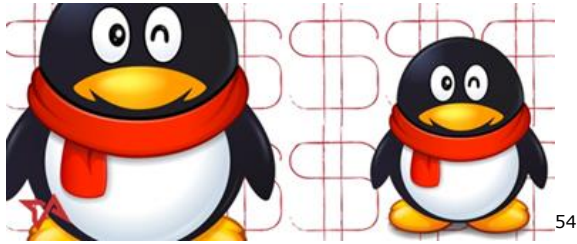
A brief corporate history

Tencent is a Chinese internet service portal offering value-added internet, mobile, telecom, and online advertising services. The company was founded in November 1998. Tencent has grown into one of China's largest and most used Internet service portals.

E-commerce and media firm Naspers (see case study), Africa's biggest company by market value, invested in the new-born firm in 2001, and owns about a third of Tencent (34%). To be noted the company lost money in its early years, but it was able to continue operation thanks to its investors.

Milestones and corporate history:

The corporate history shows a step by step approach for building its ecosystem opening with an instant messaging service. At first, Tencent focused on text messaging, but soon was transformed into a Chinese answer to America Online's AIM.

In the early 2000, the company was losing money but it took off first with the release of popular Korean PC games in China, like "*CrossFire*" and *Dungeon and Fighter* (Custer, Ch, 2014).

Today, it still derives a big part of its revenue from sales of "avatars," cartoon characters introduced in 2004 as a game service that Tencent users pay to adopt as "online personalities".

More recently, the company initiated its foreign expansion starting with India in 2008, then Thailand, and in 2011 with its major investment in US Riot Games. In its games portfolio, the company combines in-house developed games and licensed games.

The company went through the following steps:

- *November 1998*: foundation
- *February 1999*: Launched instant messaging service QQ
- *August 2000*: Launched mobile telecommunication value-added services
- *June 2001*: Launched Internet value-added services
- *August 2003*: Entered online games market
- *November 2003*: Launched web portal, www.QQ.com
- *May 2005*: Launched multi-media social networking service Qzone
- *March 2006*: Launched C2C platform paipai.com and online payment platform Tenpay
- *June 2008*: Established a joint-venture with MIH in India to invest in ibibo
- *September 2009*: Launched self-developed search engine SOSO
- *April 2010*: Invested in DST/Mail.ru in Russian speaking market
- *August 2010*: Invested in most popular web portal Sanook in Thailand
- *January 2011*: Launched mobile social communication service, Weixin

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54 QQ the chubby penguin.

- *February 2011*: Invested in Riot Games (majority equity interest) in the United States[55]
- *March 2011*: Launched video portal v.qq.com
- *July 2011*: Invested in Kingsoft and its subsidiary Kingsoft Internet Security Software
- *December 2011*: Launched e-Commerce open platform buy.qq.com
- *2013*: Launched game centres on Mobile QQ and Weixin, invested and formed strategic cooperation with Sogou, invested in Garena (Singapore).
- *2014:* Strategic partnerships with Dianping (a restaurant rating and group buying website, a 20% stake for USD 400 million), JD.com (the leading online direct sales company in China, a 15% stake expanded to 17.43% on a fully diluted basis by investing an additional USD 1,325 million), and South Korean CJ Games (a 28% stake for about USD 500 million). Tencent owns now about 12% of the shares of Activision Blizzard after the splitting from Vivendi, as a passive investor.
- *2015*: Purchased a 14.6% stake in Glu Mobile, a San Francisco game developer known for the hit app *Kim Kardashian: Hollywood*.

Tencent - Growth of the total registered IM user accounts (million) for QQ

Source: Tencent, http://www.tencent.com/en-us/at/roadmap.shtml
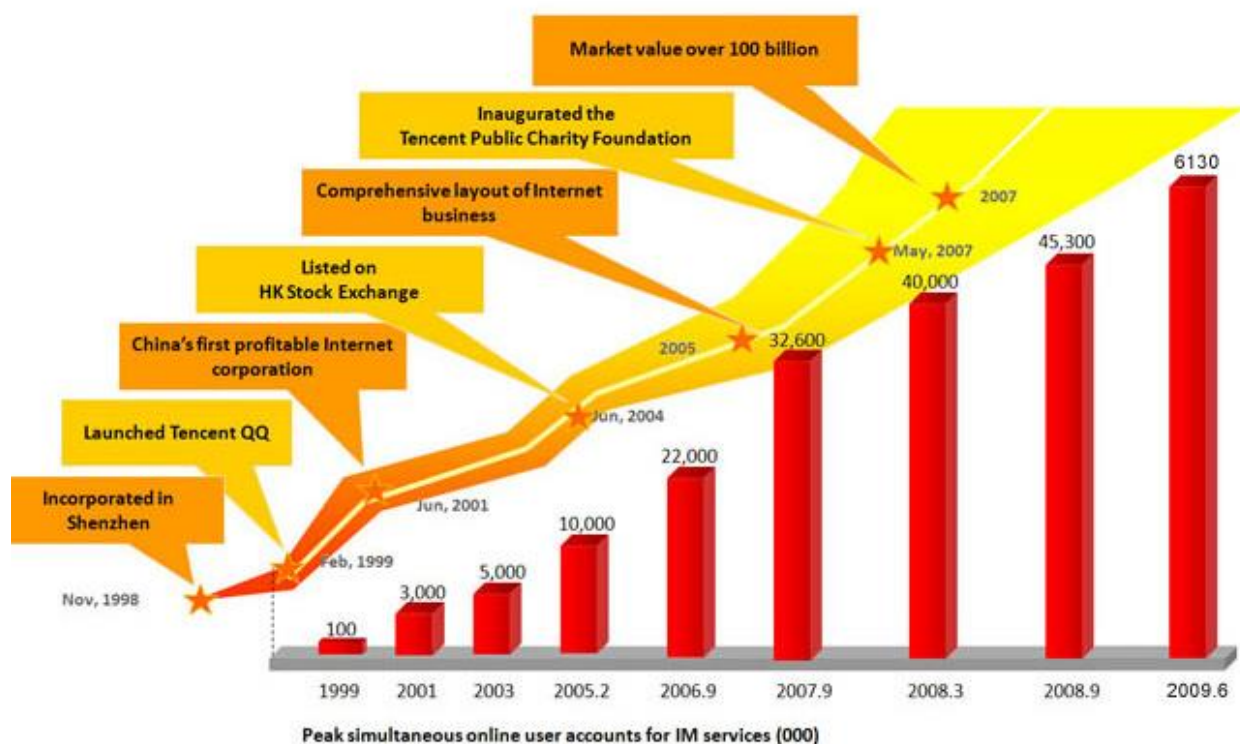
Following the strategy of one-stop online living, Tencent has established seven main business lines, including IM (Instant Messaging) Service, Online Media, Wireless Internet Value-Added Services, Interactive Entertainment Service, Internet Value-added Service, E-commerce and Online Advertising Service. As one of the four online platforms of Tencent, Tencent Games (QQ Game Platform for online games) is an online game developer and operator, and is recognized as the largest online game community in China. In the PC gaming market, Tencent published six of the top 10 games in China (2014). Tencent develops and publishes a wide variety of popular mobile games as well, and the company has China-exclusive deals for popular global titles like *Plants vs. Zombies* and *Candy Crush Saga*. The games and related activities regrouped as value-

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[55] It purchased later the remaining equity of Riot Games for an undisclosed amount.

added-services (VAS) account for the bulk of the revenues: around 80%. Most of the games (casual, mobile) are free and item-based, some are subscription based. In 2014, the company diversified its portfolio of smart-phones games from casual to mid-core and self-developed or third party games.

The popularity of mobile internet grew on the back of the increasing adoption of smartphones and emergence of a large variety of compelling mobile applications. Mobile internet users comprised more than 69% of the total internet user base at the end of 2011, up from 66% the previous year. This growth has enabled Tencent, through its persistent focus on user experience, to extend the growth of its core platforms. Tencent became in 2014 the largest publisher of mobile games in China and one of the largest globally. The mobile games benefited from a significant growth of in-games item sales. Tencent's online currency, Q Coins, can be used to purchase virtual goods.

Other services include QQ IM (membership of RMB 10 per month), Qzone (the leading social networking service platform in China: free; monthly subscription fee for VIP privileges (RMB10); and items sales from apps on open platform), Weixin and WeChat (a next-generation communications service for smartphones: see box below); as well as an eCommerce open platform. Tenpay has a 21% share of the online payment market. At 31 March 2014, QQ IM had 848 million monthly active user accounts and 200 million peak concurrent user accounts; Qzone had 654 million monthly user accounts (4Q14); Weixin known as WeChat internationally, had a combined 549 million monthly users (see box below), evolving from a pure communications service into a multifunctional platform. Their on-line advertising segment has been growing fast.

Tencent - WeChat, a messaging app turned into platform, portal, and social network

Known in Chinese as Weixin (微信) — "micro letter" — WeChat is a messaging app for sending text, voice, and photos to friends and family. Before WeChat was launched in 2011, the most popular messaging app in China was called QQ — and it was also made by Tencent. QQ started on the desktop and made its way onto feature phones in 2003 and smartphones in 2008. But when Tencent realized how game-changing the smartphone really was, they decided to tackle the problem with a blank slate rather than have the QQ team try to create a better smartphone app. WeChat was created by an entirely new group of Tencent employees who were challenged to design a mobile messaging service without the legacy of PC.

WeChat's average revenue per user or ARPU is estimated to be at least USD 7.[56] Early 2015, WeChat had 549 million monthly active users (MAUs) among over one billion registered users, almost all of them in Asia. To put that in context: only 150 million MAUs fewer than Facebook Messenger, almost 3 times the MAUs of Japan's Line, and 10 times the MAUs of Korea's Kakao (which Tencent is also an investor in).

Downloading the app is free, but it offers more functionality… all in a single, integrated app. Along with its basic communication features, WeChat users in China can access services to hail a taxi, order food delivery, buy movie tickets, play casual games, check in for a flight, send money to friends, access fitness tracker data, book a doctor appointment, get banking statements, pay the water bill, find geo-targeted coupons, recognize music, search for a book at the local library, meet strangers around you, follow celebrity news, read magazine articles, and even donate to charity.

WeChat has focused on building a mobile lifestyle — its goal is to address every aspect of its users' lives, including non-social ones. The way it achieves this goal is through one of the most unsurfaced aspects of WeChat: the model of "apps within an app". Millions (note, not just thousands) of lightweight apps live inside WeChat, much like webpages live on the internet. This makes WeChat more like a browser for mobile websites, or, arguably, a mobile operating system complete with its own proprietary app store.

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[56] That's 7 times the ARPU of WhatsApp, the largest messaging platform in the world.

The lightweight apps on WeChat are called "official accounts". Approved by WeChat after a brief application process, there are well over 10 million of these official accounts on the platform — ranging from celebrities, tech news, banks, hospitals, drug stores, fashion brands, car manufacturers, toy companies, internet startups, personal blogs, and more.

Developing official WeChat accounts has become so popular in China that new startups sometimes test their version 1.0 product on WeChat's platform before dedicating resources to building and marketing a standalone native app.

To make its official accounts platform work, then, WeChat had to move beyond the framework and limitations of a social network — where content is king — to a system that prioritized usefulness and functionality above everything else. This focus on function over social has significant consequences for brands.

The cornerstone of this model is payments, which are managed through a portal that lives in a completely separate part of the app from official accounts (yet is still readily accessible). That portal takes the form of the WeChat "Wallet", which is not a traditional wallet but a menu of carefully curated, pre-selected service providers that users can transact with after inputting their payment credentials. At least one in five active WeChat users are set up for WeChat "Payments".

In China, meanwhile, usage of the WeChat Payments platform is growing so quickly that WeChat is experimenting with processing payments offline via QR codes at brick-and-mortar stores, live events, vending machines, restaurants, and hotels. The network effects are obvious and substantial: the more places that accept these payments, the more users will jump on board (and it goes both ways, both offline and online).

So what makes the wallet model work? The WeChat Wallet menu has several portal-like characteristics: as mentioned earlier, it has 1) built-in trust since designated partners have been vetted and selected by Tencent, as well as 2) automatic authentication of identity and payment, and 3) the ability to offer seamless experiences with third parties while never requiring the user to leave the WeChat app.

Tencent architected, and in some cases, subsidized the payments system in WeChat's early days. The resulting user adoption and portal model has given Tencent a kind of "kingmaking power" for Chinese apps (and by association, internet startups in China) because partner companies selected to be part of the WeChat Wallet portal get instant exposure to hundreds of millions of users.

With WeChat, mobile doesn't just navigate, but moves into the physical world: offering an online-offline integrations. So where most U.S. apps confine the smartphone camera to just taking photos of people and places, WeChat engages the camera to scan English text and translate it into Chinese, or to pay directly for a transaction. WeChat also better utilizes all the other smartphone sensors as sources of data input: It uses GPS when users search for businesses nearby. It calls upon the microphone to identify a TV show or a song on the radio. It uses the accelerometer when a user shakes a device to find strangers nearby to chat with. And it uses bluetooth when users add friends in their vicinity.

Source: C. Chan (2015)

Tencent is expanding into other apps. Pitu, its photo apps, became one of China's most popular photo apps in Q1 2015 (AppAnnie, 2015). The company invested in Didi-Dache the taxi-hailing apps, soon-to-merge with Alibaba-backed Kuaidi Dache. The two companies will control 99% of the Chinese market for these apps (Millward, 2015). Tencent became a major backer of Koudai Guuwu, an e-store enabling merchants to set online shops with Wechat. The company invested as well in DianPing (Tencent owns a 20% stake), a Chinese amalgamation of Yelp and Groupon, entering food-delivery services.

As Millward (2015,b) notes "*Tencent threw a lot of money at start-ups last year – and that trend accelerated in 2015*". He lists about 50 deals around the world. "*The penguin marches on*", he states to conclude his review of the top 20 investments.

Financial data

On 16 June 2004, Tencent Holdings Limited went public on the main board of the Hong Kong Stock Exchange, raising USD 199 million. As of April 2015, with a market cap that raised above USD 200 billion, Tencent now ranks in front of leading global giants such as Amazon (USD 178 billion), eBay (USD 70 billion), and Yahoo (USD 42 billion) (Custer, 2015). In 2013, when its market value surpassed USD 100 billion (internal sources indicate an earlier date: 2009). Tencent's market capitalization was already greater than that of SoftBank Corp., McDonald's Corp. and Boeing Co (Chen, 2013).

Tencent is an investment holding company that was incorporated in the Cayman Islands with shares listed on the main board of the Hong Kong Stock Exchange. The operations of the group were initially conducted through Shenzhen (headquarter of the company) Tencent Computer Systems Company (Tencent computer) established in November 1998. Besides Naspers, other investors were initially IDG Capital Partners (a China-focused US investment firm[57], Beijing based) and PCCW (a Hong Kong-based telecom-IT company and investor[58]). Both investors took an initial 20% of the new company bringing each USD 1.1 million (Shermon and Westland, 2009: 115). PCCW was bought by Naspers as well as some of IDG's shares.

PRC regulations restrict foreign ownership of value added telecommunications services. In order to allow foreign investors to take participation, a wholly foreign owned subsidiary (Tencent Technology) was incorporated in 2000. The company went public on the Main Board of the Hong Kong Stock Exchange in 2004 and raised more than HKD 1.7 billion (USD 199 million). Its public offer was 158 times oversubscribed, with international placement significantly over-subscribed (CBS Marketwatch, 2004). In December 2011, the company offered USD 600 million senior unsecured notes.

In 2007, Tencent invested more than RMB 100 million in setting up the Tencent Research Institute, China's first Internet research institute, with campuses in Beijing, Shanghai, and Shenzhen. The institute focuses on the self-development of core Internet technologies, in pursuing its development and innovation for the industry.

In 2012, total revenues were USD 6,983 million, an increase of 54% over the year ended 31 December 2011. Revenue for the year 2014 was nearly RMB 70 billion (EUR 12 billion), up 31% to be compared with some RMB 20 billion in 2010, and had an impressive profit of nearly RMB 24 billion (34%).

As of December 2014, the company had 27,690 employees. More than 50% of Tencent employees are R&D staff. Tencent has obtained patents in various areas: instant messaging, e-commerce, online payment services, search engine, information security, gaming, and many more. For instance, in 2014 Tencent was among the top 50 applicants for applications under WIPO's Patent Cooperation Treaty (PCT).

Tencent has expanded its reach internationally both through its wholly owned foreign subsidiaries and via a number of large and important investments in market-leading companies in the digital games, social networking, and media sectors in multiple countries.

Founders

The list of founders vary according to sources from just two, Pony[59] Ma Huateng (CEO, then 34 years old), a software developer with experience in the telecom industry, and his

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[57] One of the earliest American venture capital firms to enter the Chinese market.

[58] In 2015, PCCW tried to acquire French video streaming site DailyMotion from Orange.

[59] In Mandarin, Ma Huateng's family name means "horse," the CEO likes to use his English name, Pony Ma.

fellow colleague Zhang Zhidong (CTO); to four adding CIO Xu Chenye, CAO Chen Yidan., and even eight with the further inclusion of Liqing Zeng, Chengmin Liu, Martin Lau, Kaitian Guo (Custer, 2015). Ma Huateng appears to have been pivotal for the strategy and growth of the company (Shermon and Westland, 2009: 115) focusing on the younger segment of the growing market (Einhorn, 2005).

Key words: Internet service portal, online and mobile games development, messaging apps, virtual items and avatars-online personalities.

Source: www.tencent.com

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A brief corporate history

Founded in 2006, by Evan Williams, Biz Stone, Jack Dorsey, and Noah Glass, the San Francisco based, Twitter is an online social networking service that offers users the ability to follow other users activity, read short messages of up to 140 characters, and post tweets [60] .The company started with "a simple idea: share what you're doing, 140 characters at a time" (IPO, 2013: 97). Users took the idea and strengthened it by using @names to have public conversations, #hashtags [61] to organize movements, and Retweets to spread news around the world.

The first tweet was sent on 21 March 2006. It took over three years, until the end of May 2009, to reach the billionth tweet. It takes, now, less than two days for one billion tweets to be sent. In Twitter's short history, the company went from 5,000 tweets per day in 2007, to 500,000,000 tweets per day in 2013, which represents a six orders of magnitude increase (Twitter Usage Statistics, 2015). The name for the social network was initially envisioned as "stat.us" but was changed to "Twttr" when the prototype was introduced in March of 2006, to finally become "Twitter" as the service was launched publicly on 15 July 2006.

On its website, the company claims to "*have democratized content creation and distribution, enabling any voice to echo around the world instantly and unfiltered*", which amounts to a service shaped by the people, for the people. Twitter describes its mission (Annual Report, 2014: 7): "*The mission we serve as Twitter, Inc. is to give everyone the power to create and share ideas and information instantly without barriers*".

Twitter serves customers worldwide, operates as a global platform for public self-expression and conversation in real time. Available in more than 35 languages, Twitter has more than 288 million monthly active users. It offers various products and services for users, including Twitter that allows users to create, distribute, and discover content; and Vine and video, a mobile application that enables users to create and distribute short looping videos of up to six seconds in length.

Business model

Twitter provides promoted products and services, such as promoted tweets, promoted accounts, and promoted trends that enable its customers, the advertisers to promote their brands, products, and services; and subscription access to its data feed for data partners. Advertisers use these promoted products, the majority of which are pay-for-performance, amplify their visibility and reach and complement and extend the conversation around their advertising campaigns. For instance, direct response ads are advertisements that resemble tweets, and let users click on them and take an action, such as downloading an app.

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[60] A tweet is a type of bird vocalization, Twitter (see logo) used it to describe a message sent using Twitter.
[61] A type of label or metadata tag used on social network and microblogging services which makes it easier for users to find messages with a specific theme or content. Users create and use hashtags by placing the hash character (or number sign) # in front of a word or unspaced phrase, either in the main text of a message or at the end. *Source*: Wikipedia, http://en.wikipedia.org/wiki/Hashtag

Advertisers are enabled to target an audience based on a variety of factors, including a user's interest graph. The graph maps, among other things, interests based on users followed and actions taken on the Twitter platform, such as tweets created and engagement with tweets. A user's Interest Graph it held to produce a clear and real-time signal of a user's interests, greatly enhancing the relevance of the ads that can be displayed on Twitter for users and enhancing the targeting capabilities of the company for advertisers. Twitter provides real-time analytics to these customers. These promoted products (see figure below) are incorporated into the platform as native advertising and are designed to be as compelling and useful to users as organic content on its platform. The company develops new ad formats for advertisers, and recently introduced its lead generation and application download Twitter Cards and Twitter Amplify, which allows advertisers to embed ads into real-time video content.

Advertisers generate a majority of the revenues through ads on Twitter with the balance coming from data licensing arrangements and mobile advertising exchange services. Mobile has become the primary driver of the business, generating significant revenue through mobile applications. Approximately 85% of advertising revenue was generated from mobile devices in 2014.

Twitter - Launch of key advertising products
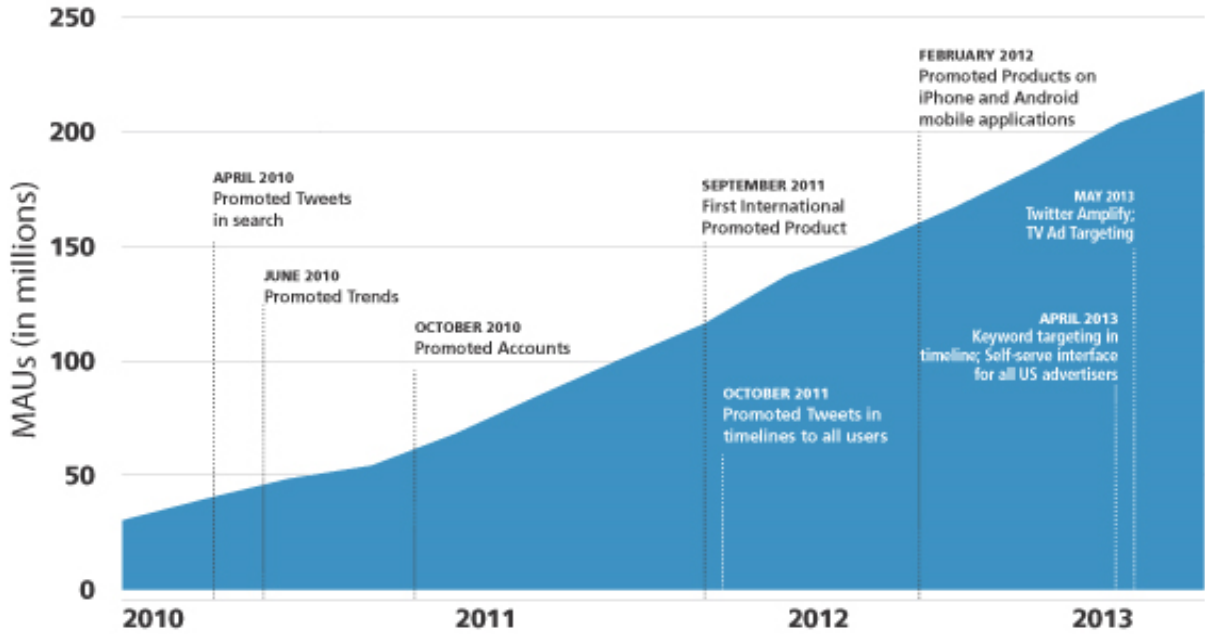
Source: IPO (2015: 62).

Twitter works with platform partners that contribute content, broadly distributing content from the platform across their properties and using Twitter content and tools to enhance their websites and applications. Many of the world's most trusted media outlets, including the BBC, CNN and Times of India, regularly use Twitter as a platform for content distribution. In 2015, Twitter began to generate revenue directly from a few platform partners, trying to benefit more from network effects.

In addition, it offers a set of tools (Fabric platform offers lightweight modular software development kits), public APIs, and embeddable widgets that developers can use to contribute their content to its platform; syndicate and distribute Twitter content across their properties; and enhance their Websites and applications with Twitter content. Crashlytics Kit gives developers a crash reporting solution, beta distribution, and mobile app analytics. Twitter Kit gives developers the ability to allow users to sign in with Twitter credentials or a phone number, embed Twitter content into their app and

leverage the Twitter API. The MoPub Kit gives developers the ability to generate advertising revenue by connecting their apps to a mobile ad exchange and integrate advertisements into their apps. There is no indication whether this involves any commercial arrangement between the parties or just increases network effects and gathering data from users.

Twitter has a very high level of R&D[62] expenditures (USD 691 million in 2014): as a percentage of revenue it was respectively of 49%, 89%, 38% for the year 2014, 2013, and 2012 (Annual report, 2014: 54). Twitter invested in 2015 in software company Cyanogen, but relies mostly on organic growth.

Financial data

Since its inception, Twitter has been setting up various rounds of fundraising in 2007, 2008, 2009, 2010, 2011 before going public in 2013. It has been raising USD 1.2 billion through this set of rounds (CrunchBase, 2015). Twitter began trading its common stock on the NYSE in November 2013 after its IPO. It took 3 years to reach the threshold of USD 1 Billion. As of April 2015 the market cap was of USD 33.35 billion (Bloomberg, 2015).

Initial investors in 2007 were: Lowercase Capital, Union Square Ventures, and angels investors Jason Port, Greg Yantanes, Brian Pokomy giving a strong flavour of California funding and financial ecosystem. Bezos Expeditions[63] invested in 2008. Morgan Stanley joined in 2009, followed by Kleiner, Perkins the next year.

As of 2014, Twitter had 3,638 employees. Over a five year period (2010-2014), Twitter revenue grew from a mere USD 28.28 million in 2010 to 1.4 billion in 2014 (Market watch, 2015). However the company is still not making any profits, in 2014 the net income was negative: USD 577.82 million, its EBITDA is highly negative as well. The net loss for 2014 is impressive: USD 577.82 million, i.e. nearly 42% of the year revenue. In its IPO prospectus, the company acknowledges having "*incurred significant operating losses in the past*" (IPO, 2013: 23).

Founders

The CEO, Richard Costollo joined Twitter in 2009 as Chief Operating Officer, responsible for both monetization and day-to-day operations. Previously, he was co-founder and CEO of FeedBurner, a digital content syndication platform that was acquired by Google in 2007. Prior to that, Costollo founded two digital media companies in Chicago: SpyOnIt, a web page monitoring service, and Burning Door Networked Media, a web design and development consulting company. He graduated from the University of Michigan with a B.S. in Computer Science and has been recognized by UM with an honorary Doctor of Laws degree.

J. Dorsey, co-founder, attended the Missouri University of Science and Technology then the New York University, but he dropped out. Since February 2009, J. Dorsey has served as Co-Founder and Chief Executive Officer of Square, Inc., a provider of payment processing services. In Oakland in 2000, Dorsey started his company to dispatch couriers, taxis, and emergency services from the Web.

Evan Williams is an entrepreneur who has co-founded two of the biggest services on the Internet, Blogger, which he ran for four years before selling it to Google in 2003, and Twitter, where he was CEO for two years and now serves on the board of directors. Most recently, he launched Medium, a new publishing platform where he serves as CEO.

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[62] Defined as: "Research and development expenses consist primarily of personnel-related costs, including salaries, benefits and stock-based compensation, for our engineers and other employees engaged in the research and development of our products and services" (Annual Report: 54).

[63] Bezos Expeditions manages Jeff Bezos' personal venture capital investments with 41 Investments in 27 Companies. Venture Capital that does Seed, Early Stage Venture, and Later Stage Venture Investments.

Noah Glass is a software developer. After leaving Industrial Light and Magic, Glass worked on several projects with Marc Canter, founder of Macromind which later became Macromedia, birthplace of Shockwave and later Flash animation and multimedia software. Glass later developed an application that allowed a user to enter an audio blog entry from a remote cell phone location. His small start-up, known as AudBlog, was eventually folded into a partnership with Evan Williams, of Blogger.com, and the duo then created Odeo, a podcasting company. In 2006, while with Odeo, Glass helped to create and develop the seed idea for what would eventually become known as Twitter. He is acknowledged as being responsible for coining the name "Twitter", which later became abbreviated to "Twttr," the earliest form of the company's name.

Biz Stone attended, but did not graduate from, both Northeastern University and the University of Massachusetts Boston. He helped build other popular social media services Xanga, Blogger, and Odeo.

Key words: advertising model, electronic self-expression, platform partners.

Source: http://investor.twittterinc.com/

Twitter Annual Report : http://files.shareholder.com/downloads/AMDA-2F526X/1638671382x0x821792/AB7B5D27-2CEB-468B-9C9B-469676E3186A/876564_Twitter_Annual_Report.pdf

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https://en.wikipedia.org/wiki/Jack_Dorsey

Uber (USA, 2010): Disrupting cabs

A brief corporate history

Uber, a US company headquartered in San Francisco, was founded in 2009, by its current CEO, Travis Kalanick and Garrett Camp, both with a computer engineering background. Uber provides an on-demand car service available via a mobile application. The app connects passengers with drivers for hire. The Uber app allows consumers to submit a trip request, which is routed to crowd-sourced taxi drivers. Kalanick describes the mission of the company as to "*turn ground transportation into a seamless service. Basically make car ownership a thing of the past*" (Rusli, 2014).

The service was launched in San Francisco in June 2010. As of 26 March 2015, the service was available in 56 countries and more than 200 cities worldwide and the company keeps on expanding its footprint. The company employs about 2000 people worldwide (Uber's Rachel Holt[64] quoted by Mosendz, 2015). According to D. McMillan (2015) quoting a report from the company, 160,000 drivers were under contract for the company in the US in 2014.

Kalanick stresses the company is creating a market that will go much beyond the existing one: "*in 2009, we were pitching the seed round and we pulled a bunch of research from this report that showed that San Francisco total spend on taxi and limo was like 120 million bucks*" (Rusli, 2014). As of December 2013, in San Francisco, Uber generated USD 17.7 million, a run rate[65] of USD 212.4 million (Shontell, 2014a).

The US app company has been able to raise the largest amount of funds so far with around USD 5.9 billion (Ezratty, 2014) collected until today. In less than five years, it has reached a USD 41 billion valuation which as noted by Davidoff-Salomon (2014) can be compared to the total revenue of the taxi industry in the United States: only about USD 11 billion a year. However, Uber was expected to hit an annual revenue run rate of USD 10 billion by the end of 2015 (Shontell, 2014b) and developed internationally without any acquisition, a prediction that looks highly overoptimistic if one looks at the leaked negative results of the company. Shontell (2014a) gives an estimate of USD 1.5 billion to USD 2 billion of revenue for the year 2014. She notes that the revenues as mostly coming from the mature markets such as Chicago, Los Angeles, San Francisco, or Washington. The CEO claims that Uber's revenues are accelerating. In June 2014, he told the "Wall Street Journal" that Uber's revenue was doubling every six months (Rusli, 2014).

However, the company that is indeed disrupting the cab business, betting on novel ways to use taxis, is meeting not only with an obvious resistance and delaying tactics from legacy players but also from numerous governments, triggered or not by incumbents companies that are one way or another (security, registration…)[66] finding the business illegal (see figure below). The service has been banned in several countries and cities. Indeed, the company operates in a legal grey area in most of the countries that it

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[64] Regional General Manager for the US East Coast.
[65] The revenue run rate is the annualized revenue of a company if one extrapolates the current revenue over a year. Run rates are useful for new business or business units within a company that have only had a short period of revenue generation opportunity. This figure allows managers, venture capitalists and investors to measure the annualized revenue.
[66] Regulations on the incumbent taxi industry vary from country to country but usually include fare controls (e.g. setting rates), requirement on specific types of services (banning ridesharing), restrictions on entry, and quality regulations (e.g., requiring background checks).

expands to. As the service has been blocked in Spain, for instance, Uber petitioned the EC against Spain in 2015 (Marketing Directo, 2015). In May, 2015, Uber office has been raided by police in China, under the accusation of running an 'illegal' car business[67].

Uber is striking back by releasing report after report explaining the benefits its operation is bringing to the local economy beyond the apparent losses of revenues for governments (taxes…). Legal costs the company generated by fighting regulatory battles across the world, from worker classification lawsuits in California to lobbying against Mayor Bill de Blasio in New York have been increasing as reflected by the amount of its general and administrative costs: USD 59 million in the second quarter of 2014 alone (DeAmicis, 2015). The figure below maps Uber's Legal Problems.

Uber's Legal Problems Worldwide
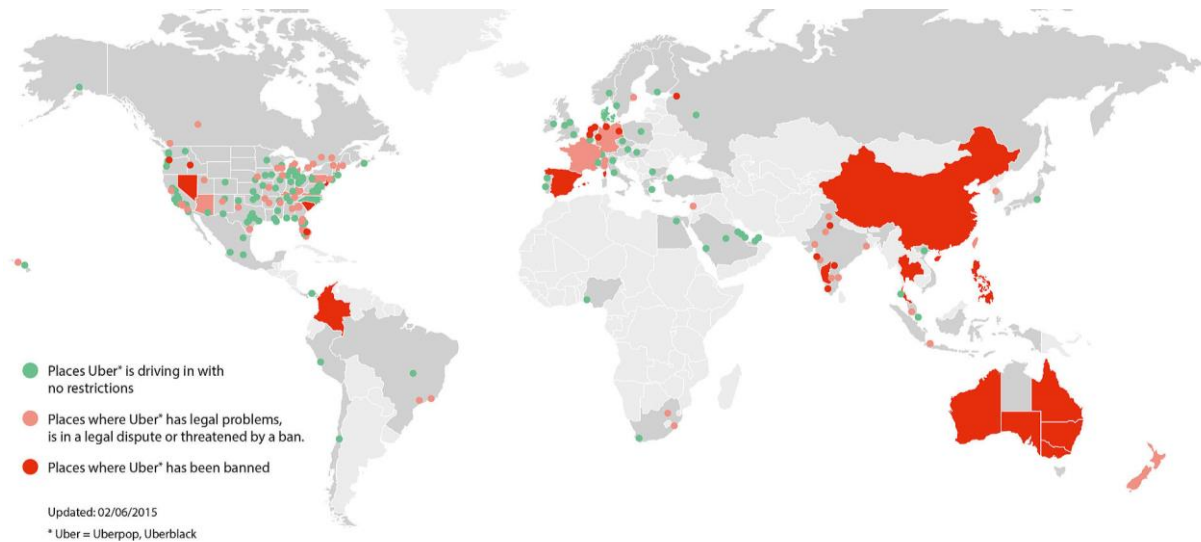
Source: http://www.taxi-deutschland.net/images/presse/Infografik_Uber-legal-issues_EN_v12_RGB_2015-02-06_final.jpg:

There is also a growing competition coming from new entrants in the same field but on the low-cost side, as Lyft, Sidecar, and Haxi. In China, where Uber is aggressively deploying its service, expanding from 11 cities to 50, Didi-Kuaidi has an estimated 95% market share (Waring, 2015a). Didi Kuaidi now claims to have a war chest filled with over USD 4 billion, which will help it to maintain dominance in the taxi-hailing app market and fend off Uber in the fast-growing segment for private car-hailing. Didi Kuaidi covers 80 Chinese cities (Millward, 2015). Earlier in September 2015, Uber announced its plan to expand into 100 Chinese cities in the next 12 months, so far securing USD 1.2 billion for its China business, backed by companies like Baidu (Coghlan, 2015).

Business model

Uber's pricing is similar to metered taxis, although all hiring and payment is handled exclusively through Uber and not with the driver personally. Uber keeps 20% of gross revenue and gives the rest to its drivers (Blodget, 2014). Blodget notes that the company has few costs other than software development, training, marketing, and lobbying as already mentioned above.

In some cities, if the Uber car is travelling at a speed greater than 11 mph (18 km/h), the price is calculated on a distance basis, otherwise, the price is calculated on a time basis. At the end of a ride, the complete fare (which does not include a gratuity: Uber's exact wording is "No Need to Tip") is automatically billed to the customer's credit card. Payments are handled automatically by charging the card, and it costs at least 50% more than a taxi (Rao, 2011).

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[67] A few days after, its Chinese competitor Didi Kuaidi, was told by Beijing authorities that two of its private car services are illegal.

The business model may look simple but the way it is implemented seems more complicated. For instance, as stressed by DeAmicis, (2015), Uber dumps a lot of cash: *It subsidizes rides for passengers and offers huge signing bonuses for new drivers in order to build up both sides of its marketplace.*

Uber launches other businesses based on its existing infrastructure, to add new revenue streams. Uber recently launched a delivery business.

Financial data

As noted by DeAmicis (2015): "*Yes, Uber Lost a Lot of Money. (And It Will Lose More.)*" Leaked numbers, published earlier this year by Bloomberg (quoted by DeAmicis), showed the company had losses of USD 470 million on sales of USD 415 million. DeAmicis, adds that the losses are likely to keep growing, as it expands further in China, a market it entered in late 2013.

The company received venture funding in late 2010 from First Round Capital and a group of super angel investors in Silicon Valley that included Chris Sacca. In early 2011, Uber raised more than USD 11.5 million in Series A funding led by Benchmark Capital. In late 2011, Uber raised an additional USD 32 million in funding from several investors, including Goldman Sachs, Menlo Ventures, and Bezos Expeditions, bringing its total funding to USD 49.5 million. Google Ventures invested USD 258 million in 2013. Early 2015, the company raised 1.6 billion from Goldman Sachs and another billion from Foundation Capital, and Times Internet.

Early 2014, investors put its value at USD 18 billion. Professor Damodaran, quoted by Davidoff-Salomon (2014), estimated that Uber's valuation was USD 799 million to USD 90.5 billion. Ramadan et al (2015) note than "*At USD 41 billion, Uber has become more valuable more quickly than any other start-up we've seen in recent years — faster than Facebook, Google, Amazon.com, and Salesforce.com*".

In July 2015, it has been reported that Uber secured Microsoft as an investor in an investment round that puts its valuation at about USD 50 billion. The following Tata Group's investment fund announced plans to make a "significant investment" in Uber to accompany its planned deployment in India: Uber recently committed to investing USD 1 billion in the Indian market (Waring, 2015). Later that same year, Uber has closed a USD 1 billion round of funding in China, which values its operations in the mainland at about USD 7 billion (Waring, 2015b). "*The investors in the latest round included hedge fund Hillhouse Capital, internet giant Baidu, China CITIC Bank, China Life Insurance and Ping An Insurance Group. The two-month funding round reportedly was oversubscribed*" (Waring, 2015a).

Investors expect Uber to go public at a valuation of $50 billion to $100 billion in a few years (Blodget, 2014).

Founders

Travis Kalanick, who studied at University of California, Los Angeles, is the co-founder of the peer-to-peer file-sharing company Red Swoosh. Garrett Cam co-founded StumbleUpon, a web-discovery platform that grew to over 25 million registered users while in graduate school in 2002.

Key words: automated payments, mobile app, crowd-sourced taxi drivers.

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Xiaomi[68] (小米科技) (China, 2010): Budget smartphones

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A brief corporate history

Xiaomi Inc., founded in 2010 by eight partners among which, Lei Jin, its CEO, is a mobile internet company headquartered in Beijing, which designs, develops and sells smartphones and related services. Xiaomi is one of the fastest growing smartphone manufacturers in the world. Xiaomi has been China's number 1 smartphone manufacturer for a couple of quarters, overtaking Samsung, Lenovo, and Apple (see following table), and the fourth biggest smartphone seller in the world (Lucic, 2015). As Millward sums it up for the 5th birthday of the company; over the last five years, Xiaomi "*has accomplished a lot more than pretty much any other half-decade-old company …While all that was happening, Xiaomi has pushed HTC to the edge of the abyss, terrified the life out of Samsung, and perhaps even given Apple some food for thought*" (Millward, 2015b).

For 2015, its Chief Executive Officer Lei Jun expects topping RMB 100 billion (USD 16 billion) in sales compared with last year's total of RMB 74.3 billion, a growth of 50%. The company is supposedly already profitable (Yarow, 2014), but being privately owned, does not disclose these data. According to IDC (quoted by Lococo, 2015a) Xiaomi captured 12.5% of the 421 million smartphones shipped in China during 2014, up from a 5.3% share the year earlier[70]. Smartphone sales account for 94% of Xiaomi's revenue complemented by other products like software and services (Yarow, 2014).

Xiaomi has three products: the mobile phone, TV and router. Its core products are Xiaomi mobile phone, MIUI and Mi[71]Talk. MIUI is an Android based operating system. As well as being available on Xiaomi's phones, MIUI is widely available for a whole host of other manufacturer's phones and this accounts, by and large, for the reputation of the company, as many people knew about Xiaomi before it started getting mainstream press. MiTalk is a mobile social application. The company explains on its website that "MI" in its logo "*is short for Mobile Internet*", but adds, not without humour, it refers to other meanings: "*one of which is "Mission Impossible" because upon establishing Xiaomi, there were many obstacles to overcome and many critics thought what we wanted to accomplish was quite impossible at that time*."

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[68] Loosely pronounced shee-ow-me. The name Xiaomi is the Chinese word for "millet".
[69] Mitu: Xiaomi's mascot is a bunny wearing an "Ushanka" (known locally as a "Lei Feng hat" in China).
[70] The figure in the table on the next page is higher.
[71] The company is often called simply Mi.

Xiaomi -Top ten OEM in 2014

Rank	Company	Units sold (million)	Market share (%)
1	Xiaomi	60.8	14.97
2	Samsung	58.4	14.38
3	Lenovo	47.3	11.65
4	Apple	46.6	11.48
5	Huawei	41.3	10.18
6	Coolpad	40.1	9.88
7	Vivo	27.3	6.72
8	OPPO	25.5	6.28
9	ZTE	18.2	4.48

Source: Lucic (2015).

Xiaomi came out with the Mi1 smart phone in 2011 and has released four more versions of the Mi phone since (respectively called Mi2, Mi3, Mi4). In January 2015, it released the Mi Note, a phablet-sized phone. It released the Mi Pad last spring, a mini tablet available in an array of "candy colours" (Hustad, 2015). In September 2015, the company announced the release of a laptop for 2016. The company announced as well it will offer a new suite of mobile telecom services Mi Mobile, having been granted a license to operate as a MVNO.[72]

The company is extending its ecosystem. Xiaomi is investing in more and more start-ups especially in the burgeoning business of smart homes (Lococo, 2015b). Indeed, over the past year, Xiaomi has steadily released a series of smart home products, including a camera, a blood pressure monitor, a smart plug, and other devices. Many of these devices are not made by Xiaomi, but by third parties.

Xiaomi was one of three new companies that made it to the top 50 of 2014 Boston Consulting Group's annual report[73] of the world's most innovative companies (BCG, 2014: 8). Xiaomi ranks 35, 15 ranks ahead of Huawei, and ahead of Tencent (47). Interestingly, the report notes that "*a majority of strong innovators from the BRIC nations–Brazil, Russia, India, and China–currently generate more than 20% of their sales from new products and services created within the past three years*" (BCG, 2014: 3).

Business model

The company has a contract with China Mobile, the country's state-owned telecom giant. The company started out with budget phones (Redmi). The objective of the company was to tap the surging domestic demand for inexpensive devices packed with high-end features, grounded in the belief that "*high-quality technology doesn't need to cost a fortune*" (website) . It combines high quality and low cost so as to price as low as possible. Husdak (2015) suggests that the company emphasizes quantity and a longer shelf-life over profit margin (but data are hard to find to document this). The bet was to sell top smartphones at the lowest price, which is opposite to Apple's strategy. However,

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[72] A mobile virtual network operator (MVNO), or mobile other licensed operator (MOLO), is a wireless communications services provider that does not own the wireless network infrastructure over which the MVNO provides services to its customers.

[73] BCG surveys 1,500 senior executives from the world's top companies to gather its data.

the strategies of the two brands seem successful, each addressing a different segment of the fast expanding Chinese market.

However, prices found on the company website or other e-distributors may not look completely low-cost, rather mid-range likely to address the growing Chinese middle-class. Its signature line of premium smart phones (the Mi brand) sells for RMB 1,999[74] (a little bit less than EUR 300 on the company website, EUR 348 advertised on the Spanish website[75]) for the Mi4, EUR 259 for Mi Pad (Spanish website), and the Mi Note was introduced RMB 2,299 (some EUR 320) (Lococo, 2015b). The latest version of the Mi-brand is priced at more than USD 500 and is selling well nevertheless according to Hustad (2015). By contrast, the iPhone sells for about USD 1,000 in China, that is still twice the price of the Mi brand smartphone.

One of the ways Xiaomi earns its margins for smartphones is by dodging marketing costs as it uses direct sales channels. Though the company will form partnerships with carriers, the majority of its revenues in China come through online flash sales since the very beginning. As noted by Yarow (2015), most of its sales come from word of mouth buzz. Xiaomi's approach is similar to Amazon. Amazon sells its Kindle devices at or below cost to expand market share, using apps and content revenue to shore up slim margins.

Xiaomi differs from other smartphone companies in that it allows users to help design their operating systems. Every Friday at 5 in the evening local time, Xiaomi releases a new round of software updates for its own OS to users in China and in Western countries. Within hours, thousands of fans are on Xiaomi forums to describe bugs and give feedback (Wongoct, 2012). On its website, the company claims that its OS MIU is "*based on improvement suggestions from some 100 million active MIUI users worldwide*". This again stands in sharp contrast with Apple. Xiaomi CEO declared in a 2013 interview "*They [Apple] don't really care about what the users want," "They imagine what the users want."* (McKenzie and Riley, 2013).

The company has over 8,000 employees, mainly in mainland China, Malaysia, and Singapore, and is expanding to other countries such as India, and Indonesia, and the Philippines. The company plans opening a US website selling health bands, chargers and headphones, but not yet smartphones or tablet computers.

In November 2014, it announced plans to sell smartphones in Thailand, Russia, Mexico, Brazil and Turkey in 2015. Early 2015, the company announced plans to become an "Indian company" by establishing a start-up, with local R&D and manufacturing: it aims to be the India's largest handset maker by 2020 (Waring, 2015a). The new Mi 4i "designed for India" will be launched in India at USD 205. In August 2015, the company started manufacturing its new phone model, the Redmi 2 Prime, in India. The month before, it had started manufacturing phones in Brazil. Devices can be bought online from a lot of other countries and sent from China[76].

However, Xiaomi may have an issue with intellectual property, because of what Dawson (2014) described as "its liberal borrowing of both hardware and software design from other vendors, notably Apple".

Financial data

Xiaomi is privately owned and backed by several investors. The company's institutional investors include Temasek, a Singaporean government-owned investment vehicle, and the Chinese venture capital funds IDG Capital and Qiming Venture Partners. The first round of funding included the mobile processor developer Qualcomm. Xiaomi phones are relying on Qualcomm's Snapdragon S4 Pro. Morningside group and Yuri Milner are also indicated.

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[74] http://www.mi.com/en/mi4/ EUR 270 for the Indian market: http://www.mi.com/in/mi4/
[75] http://comprar-moviles-chinos.com/. Delivery from China is less than one month.
[76] In Spain for instance, as noted above.

In June 2012, a fund- raising round from major venture capital investors valued the company at about USD 4 billion, a little less than half the current market value of at that time Nokia (USD 9.57 billion) and on par with that of Research In Motion (USD 3.49 billion), the maker of BlackBerry phones (Wongoct, 2012). In 2014, the company looking to raise money had a USD 40-50 billion valuation which would make it the second most valuable Android phone company after Samsung. Its valuation [77] reached US USD 46 billion only four years after releasing its first smartphone. Early 2015, Xiaomi had raised USD 1.1 billion in a round of funding from new investors as well as existing shareholders (Waring, 2015b). Xiaomi has pulled in USD 2.5 billion, a combination of investors and bank loans, from all its funding so far (Millward, 2015a, b).

Founders

An engineer by training, Jun Lei, the founder, Chairman and CEO of the company, was in 1992 part of the founding team of Kingsoft one of the best-known Chinese software companies, in 1992 and became CEO in 1998. A year later, he founded the IT information service and download website Joyo.com, the largest online retailer of books, music and movies in China, that was sold to Amazon for USD 75 million in 2004. After Kingsoft successfully completed their IPO, J. Lei stepped down from his position and became Vice Chairman at Kingsoft. In the early 2000's, he invested in many successful start-up companies like YY, UC and Vancl as an angel investor, and on 6 April 2010, he founded Xiaomi. In July 2011, he returned to Kingsoft as Chairman of the Board. Mr. Lei co-founded Kingsoft, more than 20 years ago and remains its chairman. He has also been a successful investor in several other Chinese start-ups.

Bin Lin, co-founder and president, graduated from Sun Yat-sen University in 1990, where he obtained an electronic engineering degree. He received his Master's Degree in Computer Science at Drexel University in 1992. Soon after, he joined Microsoft, where he worked as Lead Project Engineer, Senior Develop Manager of MSRA, and Engineering Director of MSRA. Mr. Lin also contributed to the R&D of Microsoft products, including Windows Vista and IE 8. In 2006, he joined Google as the Vice President of the Google China Institute of Engineering and the Engineering Director of Google Global. He was in charge of building and managing Google China's Mobile Search and the Android App Localization teams.

The other listed co-founders are:
- Wanqiang Li served at Kingsoft in various positions, including as the General Manager of Kingsoft Dictionary.
- Guangping Zhou obtained his PhD from Georgia Tech University in 1991. He was the Chief of Hardware R&D of Motorola's best-selling model "Ming" series.
- Jiangji Wong graduated from Purdue University and worked for Microsoft from 1997 to 2010.
- Feng Hong graduated from Shanghai Jiao Tong University where he obtained a computer science and engineering degree. He continued his academic career at Purdue University, where he received a Master's Degree in Computer Science. From 2001 to 2005 Mr. Hong worked at Siebel and then joined Google as Senior Software Engineer in 2006.
- Chuan Wang graduated from Beijing University of Technology with a Master's Degree in Computer Science in 1993. Mr. Wang founded Thunder Stone Technology Ltd. in 1997 and led the company to be the largest audio-visual entertainment equipment supplier in China.
- De Liu graduated with a Master's Degree in Industrial Design from Art Center College of Design (California). Mr. Liu returned to China to establish the Industrial Design

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[77] Alcatel-Lucent was estimated at EUR 15.6 billion through the public offer from Nokia in April 2015. Bloomberg, accessed in April, gave EUR 10.5 billion. http://www.bloomberg.com/quote/ALU:FP

Department at Beijing University of Technology, where he served as the department's dean.

With such background for the founders, no wonder that, on its website, the company can boast: "*we've brought together smart people from Google, Kingsoft, Microsoft, Motorola, Yahoo, and other Internet and tech companies from around the world to bring (their) vision to life*". For instance, in August 2013 the company hired a senior Google executive, H. Barra, previously responsible for Android, to lead its international business development (Ripley, 2013).

Key-words: budget smartphones, brand, consumer designed operating system, on-line flash sales, reduced marketing costs.

Source:

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Zynga (USA, 2007): A Big Data Company Masquerading as a Gaming Company[78]

A brief corporate history

Zynga Inc., headquartered in San Francisco, was founded in 2007 by Mark Pincus, Justin Waldron, Steve Schoettler, Eric Schiermeyer, Michael Luxton, and Andrew Trader (Crunchbase, 2015). Zynga provides social game services and develops social games for smartphones, websites and social websites. Being a social game service, Zynga described its mission as "*to connect the world through games*". Zynga was founded "*with the vision that play—like search, share and shop—would become one of the core activities on the Internet*" (IPO prospectus 2011). Zynga's approach of business is encapsulated in some of the statements of the company (see box below), one should note the emphasis on both free games and the role of data.

The company claimed, in 2012, to be the world's leading provider of social game services. As of 2015, it has more than 100 million monthly consumers[79]. It develops, markets and operates online social games as live services played over the Internet and on social networking sites and mobile platforms. Zynga games have been played by more than 1 billion people around the world and are available on a number of global platforms including Apple iOS, Google Android, Facebook and Zynga.com.

Zynga's operating philosophy

Games should be accessible to everyone, anywhere, any time. From the beginning, we have strived to lower the barriers to play in people's lives. We want to build games to play with our parents, our children, our co-workers and our best friends.

Games should be social. Every week our teams test new features to make our games more social. Historically, our players have created over 4 billion neighbour connections. And, our 54 million daily active users interact with each other over 450 million times a day.

Games should be free. Free games are more social because they're more accessible to everyone. We've also found them to be more profitable. We have created a new kind of customer relationship with new economics—free first, high satisfaction, pay optional. This model aligns shareholder value with delivering the best player experience.

Games should be data driven. Our culture combines the creative with the analytical. We develop and operate our games as live services with daily, metrics-based player feedback. This allows us to continually iterate, innovate and invest in the content our players love.

Games should do good. We want to help the world while doing our day jobs. Through Zynga.org our players have purchased social goods, raising more than USD 10 million for

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[78] M. van Rijmenam, (2013).
[79] Down from 240 in 2011.

those in need from tornado-stricken communities in Alabama to earthquake survivors in Haiti. With programs like our Sweet Seeds for Haiti, our players have touched people around the world.

Source: IPO, 2011: 32.

At the time of its IP0 (December 2011), Zinga had 2,846 full-time employees. In 2014, the company implemented a restructuring plan that included a reduction in work force, which brought it closer to 2,000. In April 2015, Don Mattrick resigned as Chief Executive Officer of Zynga to be replaced by the founder and former CEO (April 2007 to July 2013) M. Pincus, appointed again as CEO.

The leading games of Zinga are *CityVille, Zynga Poker, FarmVille [80] , CastleVille , FrontierVille, Mafia Wars* and *Word with Friends* . In 2011, Zynga claimed that *Zynga Poker*, their first social game launched in July 2007, was the largest free-to-play online poker game in the world with 34 million MAUs (see box below for the standard metrics used). The company has created evergreen franchises such as *FarmVille*, *Zynga Casino* and *Words with Friends*. Zynga's NaturalMotion, an Oxford-based mobile game and technology developer, is the creator of hit mobile games in popular entertainment categories, including *CSR Racing*, *CSR Classics* and *Clumsy Ninja*.

Zynga - Key Operating Metrics[81] for video games

Companies are tracking their customers using several operating metrics:
- "DAUs," which measure daily active users of games,
- "MAUs," which measure monthly active users of games, "
- MUUs," which measure monthly unique users of games,
- "MUPs," which measure monthly unique payers in games,
- and "ABPU," which measures the average daily bookings per average DAU, each of which is recorded by internal analytics systems.

Source: Zynga, Annual Report 2014: 52.

Business model

As the games are free to play, the company generates revenue through the in-game sale of virtual goods and advertising (banner ads, video ads and product placement), leveraging its scale to increase player engagement, cross-promote their portfolio of games, continually enhance existing games, launch new games and build the Zynga brand. There are two main reasons for players to buy virtual items: to progress faster; and to improve your accomplishments in the game, taking into account the fact that, according to Gobry (2011), Zynga games purposefully involve a lot of waiting and even measured amounts of tedium.

The figure below illustrates how a player in *FarmVille* can gift a friend multiple virtual goods: "*an unwithering ring which unwithers crops, as well as birthday items and crops celebrating the second anniversary of FarmVille's launch*".

The games are accessible to players worldwide, on Facebook, other social networks and mobile platforms. Zynga processes and serves more than 300 terabytes of content for their players every day, analyzing game data to optimize their games. The company claims this ongoing feedback, combining data analytics with creative game design keep the games compelling and enhance their player experience.

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[80] Zynga's celebrated *Farmville*, is a copycat of the Chinese game *Happy Farm* (Simon, 2015).

[81] Such metrics (DAUs and MAUs) are measured and published by companies like AppData.

Zynga - Virtual gifts

Source: IPO: 87.

Initially the company had an exclusive deal for the distribution of its game with Facebook. Facebook is the primary distribution, marketing, promotion and payment platform for the games: in 2011, 91% of the revenues were generated through Facebook, 75% in 2013 (annual report 2013). Facebook sets the price players pay for Facebook Credits (small amount around USD 0.10) and collects the cash from the sale of Facebook Credits. For each Facebook Credit purchased by the players and redeemed in the games, Facebook remits 70%. As of March 31, 2013, Zynga was no longer required to use Facebook as the exclusive social platform for their properties.

In April 2013, Zinga first real money gaming (RMG) offerings, ZyngaPlusPoker and ZyngaPlusCasino, were launched in the United Kingdom through an agreement with bwin.party digital entertainment.

The primary revenue source is the sale of virtual currency that players use to buy in-game virtual goods. Some forms of virtual currency are earned through game play, while other forms can only be acquired for cash or, in some cases, by accepting promotional offers from advertising partners. Most of their players are acquired through unpaid channels, by building a large community of players through the viral and sharing features provided by social networks.

The company is committed to making significant investments as shown with the level of R&D expenditures. The research and development expenses were USD 413.0 million (48% of the revenues [82], Annual Report 2013: 50), USD 645.6 million and USD 727.0 million in 2013, 2012 and 2011, respectively.

Indeed, Zynga invests in Big Data and related technologies. In order to cope with extreme high demands of data (on a regular day Zynga delivers one petabyte of content), Zynga has built a flexible cloud server centre that can easily add up to 1,000 servers in just 24 hours. Zynga's private and public cloud server park is known as one of the biggest hybrid clouds. In other words Zynga is built around a metrics-driven culture, as noted by van Rijmenam:"*At Zynga everything revolves around metrics*" (van Rijmenam, 2013), echoing the statement of the company: "Our culture combines the creative with the analytical". Their business model combines art (creating, developing

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[82] This looks very high compared to the ratio of companies with major R&D expenditures such as Microsoft or Google, compared as well with such expenditures in other games companies or media companies (see Benghozi et al, 2015).

and implementing an idea into a game) with science (listen to customers and find out whether the game is fun or not), to quote M. van Rijmenam stressing the example of the way *FarmVille* was modified to take into account customers' reactions:

"*In the original version of Farmville, animals were merely decoration. However, data showed that more and more people started interacting with the animals and even use real money to buy additional virtual animals. So, in Farmville 2.0 animals were made much more central.*"

Financial data

Zynga was originally organized in April 2007 as a Californian limited liability company under the name Presidio Media LLC. It converted to a Delaware corporation in October 2007 and its name changed to Zynga Inc. in November 2010. The initial public offering was completed in December 2011. Zynga reached the billion threshold for its market cap after two years. In 2015, the company had a market cap of USD 2.27 billion (Yahoo Finance, 2015).

In 2007, Zynga received an undisclosed amount from Angel investor Reid Hoffman. Several rounds followed before the IPO, bringing different investors: Kleiner Perkins Caufield & Byers, Fidelity Investments, T. Rowe Price, Morgan Stanley, Google, SoftBank Capital, DST Global, Tiger Global Management, Institutional Venture Partners (IVP), Andreessen Horowitz, Kevin Rose, Foundry Group, Union Square Ventures, Avalon Ventures, SV Angel, Pilot Group, Peter Thiel.

Zynga achieved a significant growth in its business in a short period of time (2007-2012), but a nonetheless significant decrease after 2012. From 2009 to 2011, its revenue increased from USD 121.5 million to USD 1.14 billion and our bookings increased from USD 328.1 million to USD 1.16 billion (annual report 2012). In 2013, revenues decreased from USD 1.281 billion in 2012 to USD 873.2 million (with a share of nearly 87% from online games and the remaining 3% from advertising) (Annual Report, 2013: 39), and to USD 690.41 million (78% from online games) in 2014 (Annual Report, 2014: 46). Besides, with the exception of 2010, the company was making losses.

Founders

Mark Pincus holds an M.B.A. from Harvard Business School and a B.S. in Economics from the University of Pennsylvania's Wharton School of Business. Mr. Pincus founded Zynga (Chief Executive Officer, Chief Product Officer and Chairman (2007- 2013). From 2003 to 2007, Mr. Pincus served as Chief Executive Officer and Chairman of tribe.net, a company he co-founded and one of the first social networks in the industry. From 1997 to 2000, Mr. Pincus served as Chairman of Support.com, Inc., a remote technology services company he cofounded, and he served as Chief Executive Officer and President from December 1997 to July 1999. From 1996 to 1997, Mr. Pincus served as Chief Executive Officer of FreeLoader, Inc., a web-based news company he co-founded.

Reginald Davis holds a J.D. from Tulane University Law School and a B.A. in European History from Harvard University. Mr. Davis, served as Senior Vice President and General Counsel since May 2009. From January 2000 to May 2009, Mr. Davis was employed at Yahoo! Inc., where he served as Vice President, Network Quality and Search Operations from November 2007 to April 2009 and Associate General Counsel from January 2000 to November 2007. Prior to joining Yahoo!, Mr. Davis spent 10 years as a partner at Hancock Rothert & Bunshoft LLP (now part of Duane Morris LLP).

Cadir Lee holds a B.A. in Music and a B.S. in Biological Sciences from Stanford University. Mr. Lee has served as Executive Vice President and Chief Technology Officer since November 2008. From December 1997 to November 2008, Mr. Lee served as Chief Technology Officer of Support.com, Inc., a remote technology services company he co-founded with Marc Pincus.

Among the board of directors, one can note the presence of Jeffrey Katzenberg, since February 2011, the CEO of DreamWorks Animation SKG.

Key-words: freemium, data-driven, metrics culture, virtual items.

Source: http://blog.zynga.com

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SECTION 2: GEMS

The companies included in this section are more heterogeneous than the ones in the previous sample. The information gathered is highly uneven as well. Basically, these "gems" are only introduced to give a flavour of potential future "unicorns". However if some look like oddities or mavericks (Meerkat), others already display an industrial profile (Cyanogen) or a clear business profile (AppAnnie, Flurry) for enterprise services that are underrepresented in the unicorn lists.

Buongiorno with two billion customers in 2012 could have looked for exit, but the company has been bought by NTT Docomo instead. Two, Cyanogen and Storm 8, are estimated being close to the billion market cap. Most of the time, revenues are not publicly available.

AppAnnie (USA, 2010): The math behind the App stores

A brief corporate history

The California based App Annie was founded in 2010 by Bertrand Schmitt (CEO). The company provides business intelligence solutions such as ranking, sales analytics and advanced market intelligence for the app economy.

AppAnnie describes its mission as performing "*The Math behind the App Stores*" through its technology infrastructure, analytics platforms, advanced statistical models. The company has been building its growth on the development of the app markets providing Big Data analysis. Its "Audience Intelligence" (launched in 2015) is a mobile-focused product generating usage data, such as active users, time spent and retention. It aggregates, anonymizes and analyzes the footprints left by individuals (downloading apps, leaving reviews and commenting on social media) and delivers wide and granular data set that shows what an app's user base is.

The company claims the service is now used by 94 of the top 100 publishers of mobile apps and more than 675,000 apps, including the likes of Electronic Arts, Google, LinkedIn, Microsoft, Nexon, Nestle, Samsung, Tencent and Universal Studios. Since it started operating in 2009, the company has tracked over 83 billion downloads and more than USD 25 billion in gross revenues (app stores revenues) to date, the industry leader by far.

AppAnnie is privately held with more than 290 employees headquartered in San Francisco, and with offices in Amsterdam, Beijing, Hong Kong, London, Moscow, New York, Seoul, Shanghai and Tokyo.

According to Tech in Asia, App Annie is seen as one of the tech industry's most important sources for tracking app trends and performance across the globe (Quigley, 2015).

Business model

The company provides analytics services and market intelligence (free analytics tools automate) so that app developers can focus on making apps. Data are delivered via an easy-to-read web dashboard with smooth export via CSV.

The company claims to have become the industry standard for analytics and market data in the app and digital content economy. The company offers tier-pricing:

- starting with free store stats: rankings, features, reviews and more for millions of apps.
- Store Stats Pro: from USD 59 per app per month, offering download and revenue estimates for select apps, aggregated to a worldwide level.
- SMB Intelligence for small companies and start-ups with < 100 people: from USD 599 per month, with App download and revenue or demographic estimates.
- Enterprise Intelligence (tailored): for precise app estimates on downloads, revenue, usage, penetration, user demographics and more.

Financial data

The company is backed by venture investors including Greycroft Partners, IDG Capital Partners, Institutional Venture Partners and Sequoia Capital. In January 2015, App Annie said it raised an oversubscribed Series D round of USD 55 million led by Institutional Venture Partners and joined by existing investors Sequoia Capital, Greycroft Partners and IDG Capital Partners. The company has supposedly tripled its revenue in 2014. Revenues may have tripled but are not publicly available.

In 2016, the company announced it has secured USD 63 million in funding, a mix of "equity and debt financing," but most of it is from the VCs. The company has raised a total of USD 157 million in disclosed funding in the past five years. This series E round was led by new investor Greenspring Associates, with participation from existing investors e.Ventures, Greycroft Partners, Institutional Venture Partners (IVP), and Sequoia Capital (Millward, 2016).

It purchased competitor Distimo Holding B.V. to establish a foothold in Europe, in 2014. Together, App Annie and Distimo have nearly 600,000 apps relying on their analytics platform with a total of nearly 270,000 registered business users. In May 2015, it acquired Mobidia, a pioneer in mobile measurement with the largest global sample of smartphone and tablet users, since 2012.

Founders

Bertrand Schmitt (Wharton School, University of Pennsylvania) is a technology entrepreneur with 14 years of executive experience in the mobile, Internet and analytics space across Europe, US and Asia. Previously, he was VP Mobile for Gomez (web analytics) acquired in 2009 by Compuware for USD 295 million, and before that he was COO and VP Marketing at Zandan (mobile analytics) acquired by Keynote Systems. He also held management / founder roles at Neocom Multimedia and Arkadia Netsystems.

Key words: Analytics 3.0, Apps economy, Big Data, Business Intelligence.

Source:

App Annie: www.appannie.com

https://www.pehub.com/2015/01/app-annie-raises-55-mln-from-ivp-sequoia-greycroft-idg/

https://www.crunchbase.com/organization/app-annie

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Buongiorno (Italy, 1999/ Japan, 2012): A pioneer of mobile contents

A brief corporate history

Buongiorno is one of the oldest mobile content companies around, developing and managing paid apps and services. Mauro Del Rio founded Buongiorno in Parma, Italy in 1999. The Italian successful start-up prides itself of having morph from the plain circulation of "good morning" SMS to a party of 20 friends into a "mobile content behemoth". In 1999, the company had revenues of EUR 9 million and 59 employees, up to 429 in 2005, and to a turnover of EUR 239 million in 2011. The company went public in 2003. It claims it became profitable in 2005.

The company was acquired (100%) by the leading Japanese Mobile Operator NTT Docomo in 2012, for an amount estimated between EUR 200 and 300 million through its Germany-based subsidiary, Docomo Deutschland. At that time the workforce reached 700 and the company boasted two billion customers in 57 countries across four continents. As of 2015, the workforce was of 600.

Business model

Content is included in the new business areas section of the annual report (see table below), described as contributing to Docomo's revenues (Annual Report 2014: 3, 10) and seen as a future engine of growth. The stream of revenues coming from "other operating revenues" is not broken down in the Annual Report.

Docomo new business areas

Companies that DOCOMO has invested in or collaborated with in recent years	Business field
net mobile AG (Germany)	Provision of mobile content distribution and billing platforms to carriers
Buongiorno S.p.A. (Italy)	Provision of business-to-consumer mobile content distribution and billing platforms
fine trade gmbh (Austria)	Provision of online commerce payment services (bill payment, credit card payment, direct debit payment, etc.)

Source: NTT Docomo, Annual Report (2014): 33.

Its services include a sprawling list of direct-to-consumer offerings and those it creates in partnership with carriers (connections with more than 130 telephone carriers) and others — cover gaming, music, casual content like wallpapers and ringtones, and mobile payments. The business activity of the Buongiorno Group is subdivided into the following segments: the core activity of the Group - value added services for mobile telephone users (B2C), services for telephone carriers and relationship marketing services for businesses (B2B), and New Biz & Shared Services, which refers to services such as Winga, Mobile-Payments (Cashlog), and Connected Devices. Buongiorno lets telecom

operators be in control of the billing. Buongiorno's technical platform, B!3A, is a bespoke solution created to design, build and operate top standard telecom data services.

The history available on the company website shows that the company grew by mergers and acquisition: music store Vitaminic in 2003, 2004 acquisition of Gsmbox (adding mobile2TV voting capabilities); 2005 purchase of France's Freever; in 2007 it acquired Silicon Valley's Rocket Mobile, followed by HotSMS and FlyTXT (mobile marketing and loyalty), and acquired iTouch that same year. Their history shows at the same time that the company had been revisiting frequently its strategy. In 2007, Buongiorno was already addressing a target audience of 1 billion users in the EU, the US and Asia. They also draw in the evolution, from traditional broadcasting to PC with some form of content creation and mobile (content creation and PtoP). In the US they offered service first for Sprint, then Cingular and moved to South America.

In 2011, Buongiorno refocused its business, concentrating on the B2C segment spinning off its B2B operations. Earlier, the company grasped the opportunity brought by the advent of the iPhone and various App Stores and the shift of the mobile entertainment market toward apps. The company became a leading app company.

Founders

His founder graduated from Cefriel/Politecnico University (Italy) and was involved, while at Ote Telecomunicazioni (the Italian branch of Marconi Group) specialising in the research and development of the first experimentation of standard technology GSM in 1989.

Key words: Apps; content creation,

Source:

Buongiorno, company website: http://www.buongiorno.com

Buongiorno, *Annual report 2011*, available through
http://www.buongiorno.com/financial-information

NTT Docomo, Annual Report 2014.
https://www.nttdocomo.co.jp/english/corporate/ir/library/annual/fy2013/html/index.html

https://www.crunchbase.com/organization/buongiorno

Cyanogen (USA, 2009): Mobile customization

A brief corporate history

Cyanogen was set up in 2009 by Kirt McMaster (CEO), Steve Kondik (CTO), Koushik Dutta. The company has offices in Seattle and Palo Alto. Cyanogen is a leading mobile operating system company that is evolving the Android platform to create a more open, level playing field for third-party developed apps and services. The company has about 120 employees, almost all of whom are engineers.

Cyanogen describes its role as "*reimagining mobile computing, giving power to the people to customize their mobile device and content experiences*". Cyanogen OS is built on Android and known for its personalization features, intuitive interface, speed, improved battery life, and enhanced security. An open OS, the company claims, "*built by users for users*". Cyanogen backs the largest open source Android developer community in the world. The CEO claims: "*We're not an app. We have the potential to be a big meaningful mobile platform.*"(quoted by K. M. Cutler, 2013).

The company is trying to compete with Android operating system with its interactive CyanogenMod. Based on the Android Open Source Project, CyanogenMod is designed to increase performance and reliability over Android-based ROMs released by vendors and carriers such as Google, T-Mobile, HTC, etc. CyanogenMod also offers a variety of features and enhancements that are not currently found in these versions of Android.

Business model

The company earns minimal revenue, selling "themes" designed by the company that users can apply to customize the look and feel of their phones, and currently relies on the Google Play Store for billing. As noted by C. Chavez (2014): "*Cyanogen Inc's has yet to generate any sizable revenue*" (no data available on the revenues). According to the company, fifty million people already run Cyanogen on their phones. Cyanogen has a chance to snag as many as 1 billion handsets (outside Apple and Google, total number of smartphones to grow from about 2.5 billion to nearly 6 billion by 2020).

Cyanogen is planning to convince a growing list of phone manufacturers to make devices with Cyanogen built in, rather than Google's Android aiming at taking a share of the 1 billion handset. Chinese-made OnePlus One[83], a Cyanogen phone released last year is seen as outperforming many of its competitors, including, in various tests, the iPhone 6. It starts at USD 300, without a subsidy. Their phones are selling out in record time. Analysts say each phone could bring Cyanogen a minimum of USD 10 in revenue and perhaps much more which will be the way the company will make money. The bigger

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[83] Can be bought over the Internet, from USD 298. The upstart electronics company sold more than a million units of its debut phone, the One, last year by favouring overseas markets such as the US, the UK and India. Like Xiaomi, the company focuses on online, direct-to-consumer sales and deliver affordable hardware with premium specifications. *Source*: Lococo (2015), Bloomberg.

opportunity will be from revenue-sharing deals with app developers who integrate their services deeply into Cyanogen-based phones.

The deals will take many forms, from distribution to in-app purchase agreements to customized services for specific countries. In 2014, Micromax, the market leader in India, began selling Cyanogen phones under its high-end Yu brand. The deal made Micromax the exclusive Cyanogen seller in India. A phone is being made by Blu. A Miami company that has become one of the most popular phone makers in Latin America; its phones are sold in the U.S. through Wal-Mart and Best Buy and are among the bestselling unlocked phones on Amazon. The phone will be released later in 2015. In Asia, Baidu, Tencent (one of its early investors), Alibaba and China Mobile should be its main targets, since they have faced problems in creating their own ecosystems.

The company inked an alliance with Qualcomm to integrate Cyanogen OS with Snapdragon processors. In April 2015, Cyanogen and Microsoft announced a partnership to integrate popular Microsoft services across the Cyanogen Operating System. The wide-ranging partnership will incorporate several of Microsoft's mobile services, including Bing, the voice-powered Cortana digital assistant, the OneDrive cloud-storage system, Skype and Outlook.

Financial data

As of May 2015, Cyanogen has raised a total USD 110 million in funding. Cyanogen just raised USD 80 million from investors that include Twitter, mobile chip powerhouse Qualcomm, Telefónica Ventures, Redpoint Ventures, Santander Innoventures, Smartfren Telecommedia titan Rupert Murdoch, Tencent and contract manufacturer Foxconn. The round, which values Cyanogen at close to USD 1 billion[84], is being led by PremjiInvest, the investment arm of Wipro's billionaire founder, Azim Premji, India's third-richest man. In 2013, earlier investors pumped an additional USD 30 million into Cyanogen, among them: Benchmark, Andreessen Horowitz, Redpoint Ventures and Tencent.

Founders

Steve Kondik, is a 40-year-old entrepreneur and veteran programmer. Before starting the company, he led a research and development team at Samsung Mobile.

Kirt McMaster, Canadian, joined a Silicon Valley startup during the dot-com boom and helped run Boost Mobile. McMaster later went to work at Sony.

Koushik Dutta was an independent app developer and a mobile industry veteran. Koush received his Computer Science degree from Michigan State University.

Key words: Android's competitor, mobile customization, mobile platform, revenue sharing.

Source: http://cyngn.com#sthash.yUifH5yo.dpuf

http://www.cyanogenmod.org/about

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[84] USD 500 million, according to Bloomberg.

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Flurry (USA, 2005): Mobile analytics

A brief corporate history

Flurry, a US company headquartered in San Francisco, California, was founded in 2005 by Dan Scholnick, Sean Byrnes, Gabriel Vanrenen, with the help of venture capital. Flurry provides analytics solutions for businesses to monitor the trends and habits of mobile users across multiple mobile applications. Flurry describes its mission as to optimize the mobile experience through better apps and more personal ads.

Flurry is venture-backed and headquartered in San Francisco with offices in New York, London, Chicago and Mumbai.

As of July 2014, the company was acquired by Yahoo.

- 170,000 developers use Flurry Analytics, Flurry works with mobile developers in 150 countries,
- Flurry sees app activity from 1.4 billion devices monthly,
- Flurry sees 5.5 billion app sessions per day,
- Flurry Analytics is in 7 apps per device on average,
- 8,000 publishers monetize with Flurry.

The company stresses in its role to grow the app economy into a USD 100 billion + industry, since the launch of the smartphone. Marketers, agencies and programmatic buyers partner with Flurry to reach consumers on their most personal and indispensable devices: smartphones and tablets. Publishers work with Flurry to monetize their content through advertising, and mobile developers rely on Flurry Analytics to understand their apps and users. Flurry releases its mobile industry trends and insights on the Flurry Insights blog.

Not being public, its revenues are not available but according to Internet sources it became cash-flow positive in 2012.

D. Scholnick graduated from Dartmouth College with an A.B. in Computer Science and has an M.B.A. from Harvard Business School.

S. Byrnes earned an undergraduate engineering degree from Dartmouth College and a Master of Engineering in Computer Science from Cornell University.

G. Vanrenen Prior founded Skimble, after Flurry, a leading mobile analytics company and was an engineer at Wily Technology before its acquisition by CA. He graduated Summa Cum Laude from Dartmouth College.

Key words: Analytics 3.0, Big Data,

Source: http://www.flurry.com/about-flurry

https://www.crunchbase.com/organization/flurry#sthash.UIaE6IuZ.dpuf

Meerkat (USA, 2015): Narcissistic video streaming for the age of the selfie stick

A brief corporate history

Meerkat, headquartered in San Francisco, was founded in 2015 by Ben Rubin (CEO), Roi Tirosh, and Itai Danino. It comes from another company, founded in 2012, AIR and Yevvo. Meerkat is a live streaming video app that alerts users through twitter. It allows users to broadcast a live video stream from their mobile phones. Key to its appeal is that every video can only be watched live. Ben Rubin, Meerkat's co-founder, has described it as a "*live video button for Twitter*". Meerkat is currently available for beta for iPhone and iPod touch. Like Periscope[85] it provides real time video feeds "*enabling individuals to see the world through another person's eyes*".

The business model is far from obvious but as stressed by Bradshaw (2015): "*In an online world of infinite distractions, Meerkat provides appointment-to-view narcissism. But as Twitter itself has shown, if a site collects a big enough audience with the trivial, profound things can sometimes happen*".

In March 2015, month-old video app Meerkat raised USD 12 million in new funding. This illustrates how Silicon Valley investors are betting that large numbers of people will take to live broadcasting of digital video from their mobile phones, even if the track record of mobile TV has not been impressive so far[86]. So far, the company has raised USD 18.2 million.

Meerkat's funding round was led by Greylock Partners, which has backed social networking successes Facebook, Instagram and LinkedIn as well as Airbnb and Dropbox. Terms of the deal were not disclosed but press reports have suggested it raised about USD 12 million, valuing Meerkat at roughly USD 40 million.

Meerkat's founders previously created Yevvo, another video app.

Key words: live video streaming, real time video feeds.

Source: http://meerkatapp.co/[87]

https://www.crunchbase.com/organization/meerkat#sthash.PdJas32a.dpufMeerkat

Bradshaw, T., (2015), "Meerkat: narcissistic video streaming that could yet be profound".

http://www.ft.com/intl/cms/s/0/5dcb7d00-c198-11e4-bd24-00144feab7de.html#axzz3VxAe0rnw

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[85] A similar application : https://www.periscope.tv/about
[86] See Buongiorno case study.
[87] On the company's website, it is easier to buy a meerkat t-shirt than to get real information!

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Storm8 (USA, 2009): Betting on organic growth without VC

A brief corporate history

Storm8 is a privately-held company that develops social mobile gaming software particularly for the Android and iOS platforms the (iPhone, iPod Touch). Storm8 was founded in 2009 by former Facebook engineers, Perry Tam (CEO), William Siu and Chak Ming Li, together with Laura Yip, and Anil Dharni. It is based in Redwood City, California.

Storm8 claims to be the leading developer of social games for iOS and Android. With more than 50 million monthly active users and more than 1 billion total downloads to date, Storm8 is also home to three brands: TeamLava, Shark Party and FireMocha. Under these brands, Storm8 has amassed a network of 400 million devices worldwide and continues to create a portfolio of mobile social games that span genres: from casual arcade hits *Bubble Mania* and *Jewel Mania*, to social casual games like *Dragon Story* and *Farm Story 2*, to MMORPGs like *World War* and *iMobsters*, to social casino games like Slots and *Bingo*!.

Business model

The business model is the free-to-play model with virtual goods. The company stresses the interaction with users: "*keeping a laser focus on building and retaining our players who inspire us every day to develop the best games*" (AppAnnie, 2015a).However it is to be stressed that the California based company opted from the start for a portfolio strategy so as to loosen the sector's association with "one-hit-wonder" games. Operating under a 'network-first' model, it doesn't rely on a single super-hit like King's *Candy Crush* or Zynga's *FarmVille,* or Rovio's *Angry Birds*. Instead it has over 40 titles spread across its four different labels. The company has 250 employees.

Storm8 ranked 10th in 2014, among the top 10 publishers in France and Germany (AppAnnie, 2015b: 23).

Financial data

The company development is based on organic growth and being able to successfully build one of the biggest mobile social gaming networks without raising any venture capital funding. As noted by J. Jordan (2014): "*Despite being based in the Bay Area, it's never taken VC investment, instead bootstrapping its way from a scrappy start-up co-founded by three ex-Facebook engineers in 2009 to now a 250-strong team that's been profitable "since day 1"*.

Storm8 being a privately-held company, it does not disclosed its revenues. However, in 2011, it was reported that the company passed USD 1 million in revenue in a single day through in-app purchases of virtual currency (Cutler, 2011), triggered by a sale on virtual currency across its titles. In an interview, after breaking the news, the CEO cautiously stated: "*Obviously, we're not doing a USD 1 million every day. That would be more than USD 365 million a year*". He added: "*I obviously can't say exactly our daily revenue figures are but I would say that the company is definitely making some decent money*" (Cutler, 2011a). Since in 2011, the company had 200 million downloads, one can probably predict a USD 400-500 million range of revenues, "decent" enough! A year after

this interview, the CEO stated again that the company was indeed profitable (Cutler, 2012).

Not being public, there is no market cap but as a comparison, that same year, Glu Mobile, was trading at a USD 308.1 million market capitalization with some 953,000 daily active users at the end of the first quarter of 2011(Cutler, 2011b). Besides, in 2011, J. Kincaid reported in Techcrunch (2011) that the company was "*raising a massive round in the ballpark of USD 300 million — at a USD 1 billion valuation*", it never happened but gives an indication that the company may have been in a position to join the "Unicorn Club" after only two years.

Founders

Perry Tam, graduated in Computer Science (B.S.) from Cornell University.

Mr. Siu, together with Mr. Tam, worked on the team that developed Facebook Credits, which enables virtual currency to be used to buy virtual goods in games and applications.

Mr. Li, graduated as Computer Engineer (BASc) from University of Waterloo, and previously worked on Facebook's ad products.

Key words: free-to-play, portfolio strategy, organic growth, virtual currency.

Source: http://www.storm8.com/about-us

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Yodo1 (游道易)(China, 2011): The gates of games in China

A brief corporate history

Yodo1, a game as a service (Gaas)-based platform founded 2011, by Henry Fong (CEO), and James LaLonde, is a leading publisher and co-developer of smash hit indie games, and "*is dedicated to bringing them massive worldwide audiences without compromising their indie spirit*". Founded and led by veterans from Microsoft, Disney Interactive, Sony, Electronic Arts and Activision, Yodo1 combines this industry background with its experience with Free-to-Play gaming markets to help indie developers create games.

Yodo1 is based in Beijing with a presence in San Francisco, Los Angeles, Seoul, Tokyo, Nanjing, and Shanghai. Yodo is present in California and has a service team of 125. Yodo1 is also expanding to Japan and South Korea, the biggest markets in the world by revenue for Google Play developers.

Mobile game localization Yodo1 co-produces and localizes foreign games for the Chinese market. More than just a translation service, the company alters graphics, music, and in-game items to help break through cultural barriers. Its role is to "culturalize", distribute, and monetize a game in China in exchange for a share of the Chinese market revenues. Some of the 30 titles it's worked on include *Cut the Rope*, *Powder Monkeys*, and *Ski Safari.* In June 2014, Yodo1 received approximately 40% of its revenue from Apple devices (no absolute amount available).

Through their 30 published games, the company reaches about 90 million monthly actives in China and are adding about 10 million users per month. After signing deals with developers like *Cut the Rope*'s maker Zeptolab and German's HandyGames, they started to take their model to South Korea, with a local studio in Seoul opened in 2013. In partnership with ZeptoLab, the company co-developed, in 2014, for KakaoTalk, a new customized version of *Cut the Rope 2*.

The Chinese characters for Yodo1 are 游道易, pronounced "Yodo1". 游 (Yo) means gaming", 道 (do) "the way" and "Tao", 易 (Yi) means "easy" and "one". So loosely translated: "*The tao of easy game publishing*". In Chinese culture, the fish represents abundance, i.e., lots of great games with lots of players.

Financial data

In 2013, through a second round of funding Yodo raised USD 11 million in funding led by GGV Capital, bringing its total funding to USD 18 million. Other new investors, including Pavillion Capital and Iris Capital, participated. The previous round was led by Singtel Innov8 and included Changyou Fund and Zhi Tan. The company started with USD 2 million of seed capital.

Founders

H. Fong, graduated from the Swinburne University of Technology (Australia). He describes himself also as a "serial entrepreneur". He worked as a consultant, and at Microsoft and Brocade Communications Systems.

James LaLonde, graduated from University of Texas at Austin. He has been living and working outside the US for nearly 20 years (mainly Tokyo, Hong Kong, Beijing and

Shanghai). He run sales for organizations US IT companies such as Microsoft, McAfee, Brocade Communications Systems, Chinadotcom, CDC Software and EDS. He made 5 acquisitions of software and mobile gaming companies, and founded and operated 3 companies, including VC-funded Yodo1.

Key words: culturalization, Fre-to-Play, indie games, monetization.

Source: www.yodo1.com,

>   https://www.crunchbase.com/organization/yodo1

>   http://fr.slideshare.net/JamesLaLonde1

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