

Sofaer International Case Competition 2012



Babylon: The Next Quantum Leap



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Now the entire earth was of one language and uniform words... And they [the people] said, "Come, let us build ourselves a city and a tower with its top in the heavens, and let us make ourselves a name, lest we be scattered upon the face of the entire earth." And the Lord descended to see the city and the tower that the sons of man had built... He named it Babel, for there the Lord confused the language of the entire earth, and from there the Lord scattered them upon the face of the entire earth.

Genesis, Chapter 11¹

Introduction

Founded in 1997, Babylon is one of the premier providers of global online and offline dictionary and translation solutions for both individuals and corporations. Located in the center of Israel, Babylon is a globally recognized brand known for its downloadable translation software as well as the Babylon Enterprise solution, which it markets via the internet. Babylon has been traded publicly on the Tel Aviv Stock Exchange since 2003. In 2008 total revenues reached \$18.8 million. In recent years, however, Babylon's business model has evolved significantly and currently it generates the majority of its revenue through search-based advertising on the personal computer platform. In 2011, it

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generated \$47.4 million of its \$61.9 million in revenue from advertising. Babylon is currently forming its strategy for its next five-year development plan in a technology industry characterized by great uncertainty.

The Internet: Basic Communication to Modern Necessity

Background

The internet started in the 1950s with point-to-point communication between mainframe computers and developed further with the establishment of protocols for integrating multiple networks into a single unified network. In the early 1980s, these internet protocols created the foundation for the development of a global network of integrated networks termed the Internet. As the number of private internet service providers (ISPs) increased through the 1980s and early 1990s, the internet became a deregulated and open marketplace. During the late 1990s, the internet acquired up to 50% new users annually and traffic doubled each year.² Online activity includes communication through electronic mail, forum posting, blog authoring, social networking activity, phone calls based on VoIP (Voice over Internet Protocol), video conferencing and e-commerce. It is estimated that in 1993 the internet carried only 1% of the information flowing through two-way telecommunication. By 2000, this figure had grown to 51%, and by 2007 more than 97% of all telecommunicated information was carried over the internet. There are an estimated 2.3 billion internet users globally as of 31 December 2011.

The Internet Industry

While the internet industry is dynamic and considered by some as risky, it offers companies that can detect trends and future developments significant opportunity. Entrepreneurs create startups that attract multi-million dollar investments, and these investments can potentially deliver high returns. For example, Instagram, a startup that was established only in 2010 and developed a photo sharing technology for portable mobile devices, was sold recently to Facebook for one billion dollars. Most startups, however, fail and return nothing to their investors, accounting for at least some of the riskiness associated with hi-tech ventures. Established companies on which we rely for our daily communication, transportation, working, shopping and entertainment needs are increasingly

internet based, and today even the success of brick-n-mortar companies largely depends on how they utilize the latest technologies in their business practices, supply chains, marketing efforts, etc. In a dynamic business arena in which new technologies disrupt established industries, resulting in new opportunities for value creation, companies are required to strategically respond to market trends more quickly than ever before.

Throughout the late 1990s, dot-com companies defined the landscape of the internet business arena. The optimism of the growth and revenue potential of these dot-com companies was rivaled only by the willingness of the investor community to invest huge sums of money in them. These investments, however, were based largely on the basis of data on users accumulated and traffic generated rather than on actual revenues or profits. As the second millennium began, investors realized that the internet business arena lacked the long range strategic planning and viable business models required to create value for investors over the long run. As a result, the dot-com bubble burst, and a staggering number of hi-tech companies were forced into bankruptcy due to their lack of revenues and profit generation. In the resulting market correction the NASDAQ fell from a high of 5060 points in October, 2000 to 1295 points in March, 2003. In this corrected albeit contracted market, investors demanded viable business models that generated real revenues and profit. Companies now needed to know not just how to accumulate users and traffic, but also how to generate revenue from their user base and/or traffic streams.

Today there exists a multitude of viable, revenue-based business models for the internet. A software company, for example, that offers a product for a specified trial period—usually 30 days—requires payment for the continued use of the software or for access to a premium product version at the end of the trial period, a model similar to the traditional business models focused on generating revenue directly from the services and/or products sold. Payment can be made either by a one-time sum for unlimited use or by monthly/yearly subscriptions. Industry conversion rates from the trial to the premium product for successful companies range, however, on average from 1% to 3%, enabling only internet companies with a large consumer base to generate revenue and profit. The business model of some online gaming companies is based on customer downloads³ sold on such online stores as the App Store and the Android Market, downloads in which users are required to pay a fee for downloading the game and/or an additional fee for the premium edition. Some of these games, such as those developed by the Zynga company, utilize a business model based on payment for premium features. Some companies offering various web products generate their revenue stream

directly from online advertising, while others have created a business model in which, in exchange for downloading free software, their platform becomes the preferred access point on which internet searches take place, thereby enabling them to generate profits from revenue-sharing agreements with the search engine they promote (Exhibit 1).

Search-Based Advertising

Search engines (Exhibit 2) are the main mechanism utilized today for searching and finding information on the internet. Search engines work by indexing the meta-tags and meta-descriptions of the over 300 million websites currently available on the World Wide Web. Based on Boolean search terms, search engines utilize their proprietary algorithms to translate Boolean search terms into relevant search results. Internet based advertising is traditionally divided into the following three main categories: Display—sponsored banners and other visual advertisements for which advertisers pay according to the exposure number; Classified—prioritized search results that appear at the top of the search results based on advertiser payment; and Search—paid advertisements that appear in privileged areas for paid advertisements (Exhibit 3).

There are three main payment and pricing methods utilized in internet advertising. In Pay Per Click (PPC), advertisers pay a predefined price only if the add is clicked; the price to be paid for each customer who arrives through the chosen advertising method is set by the advertiser, for example, in sponsored search results. In Pay Per Mille (PPM) Impressions advertising, sponsored search results or banners and other visual advertisements are purchased according to the number of exposures. In Pay Per Action/Download (PPD) advertising, the user is required to perform a certain action for which the advertiser is charged and the media owner paid.

While there are other search engines in the market—Yahoo! or Bing, for example—Google has overwhelmingly dominated the search arena, claiming over 65% of the US search engine market and 85% of global search activity in 2011 (Exhibit 4).⁴ Google is credited as the creator of the main mechanism on which search and associated business models are monetized—PPC advertising. The core of Google advertising is AdWords, Google's platform on which online advertisers launch PPC marketing campaigns based on premium marketing information acquired by Google, thereby enabling the delivery of high-impact ads to target markets based on easily defined parameters. While Google's search engine, and those of similar companies, enables users to find relevant

information based on their personalized search activity, it also enables the search providers to collect a significant amount of valuable information about the personal preferences of each user in terms of products, services and internet activity in general. This premium information, in turn, provides advertisers direct access to their target markets and consumers based on key words and search terms.

Search engines are just one part of the ecosystem that has evolved around internet advertising. In order to increase traffic, companies like Google and Yahoo! sign revenue-sharing agreements with highly frequented websites and/or popular software companies; by providing a platform for Google based AdWords campaigns. For example, these partner companies get a percentage of Google's highly profitable advertising revenue just based on their high volume of traffic or popular software. Search providers usually contract with these companies annually or bi-annually, and there is no obligation of contract renewal. Ultimately, however, internet advertising is also subject to market forces, which influence the cost of advertising depending on the target customers and geography.

Social Networking Platforms

The internet business arena is currently undergoing significant changes as social networks have become increasingly important players in internet advertising. Facebook and other social platforms are challenging Google and other search companies in terms of acquiring valuable user information and providing a popular platform for targeted advertising. Facebook, for example, has collected information from its 845 million registered users—as of December 31, 2011⁵—that is invaluable to online advertisers, advertisers that enable Facebook to generate revenue from advertising campaigns on Facebook. Twitter, likewise, carries out extensive analytics on the online activities of its over 300 million users. Google+, a late arrival on the social scene, is Google's attempt not only to play catch up in social networks, but also to acquire the type of demographic information about its users that is so essential to Google's online advertising platform. As social networking platforms have grown to include more users and more content, these platforms pose a viable alternative to search engines in terms of navigating the internet and providing alternative sources of information to users.

The Technology Platform Revolution

In the ongoing and increasingly pervasive internet revolution, people have become as much part of the internet industry as hi-tech companies; and indeed, today more than 2.3 billion internet users utilize the internet to communicate (email, Skype, blog, twit, etc.), search (Google, Facebook, etc.), share (Pinterest, Flickr, etc.), shop (Amazon, Groupon, etc.), listen (iTunes, etc.) game (Zynga, etc.) and much more. Ultraportable, internet-enabled devices such as smartphones and tablets have redefined communication expectations in a world in which people are “online” 24 hours a day, seven days a week. Technology platforms have developed rapidly in the last four decades. Both personal computers and mobile phones, technologies that have traditionally inhabited separate domains, have undergone significant advances due to continued technological progress (Exhibit 5).

The PC Internet Platform

PCs were the main internet platform for many years. Although many research studies and articles predict the end of the PC era, global sales of PCs have increased from 292 million units in 2008 to 350 million units sold in 2011.⁶ In 2012, global sales of personal computers are projected to be even higher at 392million units sold. Research suggests that the market demand for PCs is currently driven by businesses rather than consumer demand. The PC industry is mature, and about 60% of PCs are supplied by leading brand manufacturers such as HP, Lenovo, Dell, Acer, and ASUS, while the remaining 40% are manufactured by numerous lesser known or no brand PC manufacturers around the world.⁷

The Mobile Internet Platform: Smartphones and Tablets

Smartphones (Exhibit 6) were not only an incremental development of mobile technology, but also represent a new model for access to and consumption of information. While mobile phones have been traditionally used mainly for phone calls and text messaging, smartphones enable internet access that is both more convenient and more flexible (Exhibit 7). Unlike PCs, smartphones and tablets do not navigate the internet through browsers (i.e. the page-based internet), but rather through individual applications (i.e. apps). Rapid growth is forecasted for both the global smartphone market and the tablet market in the coming years.

Global smartphone sales are projected to grow from 297 million units in 2010 to 630 million units in 2012, and over a billion units in 2015 (Exhibit 8).⁸ With slightly less than 50% of market share projected for 2012, the Android operating system is the market leader, followed by Apple's iOS with 19% (Exhibit 9).

The global tablet market is projected to grow from 18 million units in 2008 to 103 million units in 2012, and 326 million units in 2015.⁹

Most of the traffic in smartphones and tablets is done through apps (Exhibits 10, 11). The existence of several mobile operation systems—Apple iOS, Android, etc.(Exhibit 12)—creates challenges in terms of the applicability of existing business models for mobile phone advertising as well as additional costs for app developers as they are required to generate several software versions of the same app to be marketed on the various mobile operating systems. The number of apps developed for the Android operating system as of April 2012 is about 430,000.¹⁰ While most of these apps—around 314,000—are free, about 1% cost over \$10.00. The number of apps developed for Apple's iOS numbers over 500,000, and the amount of downloads as of March 2012 passed the 25 billion mark.¹¹

Babylon

Background

As depicted in the biblical story of the Tower of Babel, the world contains a multitude of languages, all of which host their own rich histories of development, extending, in some cases, thousands of years (Exhibit 13). History, in fact, has often been propelled by knowledge exchange between foreign cultures with foreign languages, exchange that has been challenged historically by language barriers; and indeed, translators have played an important role throughout history in the service of kings, pharaohs, sultans, and aristocrats, as well as of modern day presidents, prime ministers and international diplomatic organizations such as the United Nations. However, for the first time in history, the internet revolution has enabled a comprehensive and global solution to overcoming language and communication barriers that is available at the click of a button to anyone with a computer and internet connection. Babylon, as a premier provider of dictionary and translation services, has made the world not just smaller, but also more understandable for more people than at any other time in human history.¹²

The Company

Babylon is a premier provider of global online and offline dictionary and translation solutions for both individuals and corporations and a player in the online advertising market, from which the majority of its revenues derive today. A globally recognized brand, Babylon is known for its ubiquitous translation software, software that is widely available for download on the internet. Babylon holds patents on its Optical Character Recognition (OCR) technology and single-click translation technology, both of which are at the core of its “Translation @ a click” tagline and integrate seamlessly into any Microsoft Windows program. Once installed, Babylon’s content appears in a small window on the computer screen that provides a cross-application translation tool on both PC and Macintosh computers.

Babylon hosts some impressive statistics, and recently has been inducted into the Guinness Book of World Records as the most downloaded translation software ever. The company has as of March 2012 over 100 million desktop installations and handles 90 million translation requests per day (Exhibit 14,15). Babylon’s software is downloaded and installed by 500,000 new users daily with strong market growth in Brazil, Mexico, North America, Germany, India, France, Italy and Spain. With 14 million unique daily visitors, Babylon is ranked in the top 50 most visited websites worldwide (Exhibit 16). In terms of growth in internet market share, Babylon has overcome two popular websites—Linkedin and Zynga—in terms of daily unique visitors in the second quarter of 2011. Active in 231 territories, Babylon supports 75 languages and dictionaries hosting more than 18 million definition terms. Other products include various editing and language acquisition tools included in the downloadable software or offered as premium content. In addition, Babylon offers an Enterprise solution for SMBs and corporations.

Babylon started out as an internet company that marketed its web translation solutions via the Internet. After completing seven rounds of fundraising, Babylon went public on the Tel Aviv Stock Exchange in 2003. Until 2008, most of Babylon’s revenues resulted from the sale of software products, most of which were related to translation. Since 2008, however, the percentage of revenue generated from search-based advertising on personal computers has grown substantially, accounting for 76% of Babylon’s revenue in 2011; the rest of the revenues for that year were generated from the sale of software and services. Although Babylon, like numerous other

established software companies, has developed a product application for smartphones, the app does not currently generate income.

Business Model

Babylon search portal and toolbar installs automatically along with Babylon's translation software and functions as a platform for not only the company's translation software, but also its search-based advertising. The search portal and toolbar enable Babylon to generate the majority of its revenue from a business model derived from online advertising and marketing (Exhibit 17). These revenues derive from several sources: search-based advertising and revenue-sharing agreements with such search providers as Google; the sale of advertising space on the Babylon toolbar installed on the browsers of users' computers; the sale of advertising space on the Babylon website; and the bundling of affiliate programs alongside the Babylon translation program during download (Exhibits 18,19). In order to optimize its revenue, Babylon can determine which search engine appears on its online search portal according to contractual agreements, user feedback and/or geographical region. In 2007, Babylon signed the first of its revenue-sharing agreements with Google, and has signed similar agreements with such global search engines as Yahoo!, Bing and Ask, as well as with such lesser known search engines as Yandex, the most popular search engine in Russia and the fifth largest in the world (Exhibit 20).

While online advertising and marketing accounts for the majority of the company's current revenue, Babylon still generates roughly a quarter of its revenue by the more traditional method of selling software and services. Babylon's products and services can be divided into the following seven categories: Translation Program, Premium Content, Babylon Enterprise, Smartphone Applications, Human Translation Service, Electronic Dictionary, Language Learning and Spelling Service (Exhibit 21).

Babylon 9, the flagship product, is Babylon's current downloadable software package, software that enables translation into 75 languages with just one click. A monthly subscription for the Babylon translation software costs \$9.90 per month, and a lifetime license costs \$109.00, with the optional addition of the Oxford Dictionary for an extra charge of \$10.00. In addition, bundle packages of hundreds of licenses are marketed at a discount to corporate clients as well as to affiliate distributors. Babylon offers premium versions of products such as English language learning

programs, Babylon Talk Vocabulary Builder and Story World English, Babylon Writing Solutions, Babylon's premium translation service, etc.

Marketing

Babylon's products and services are marketed through the company's website and online store as well as through its call center. Babylon is a global brand in the field of translation and language acquisition, a fact that enables the company to market directly from its online store, which is available on its website in 14 languages and accepts payment in 10 currencies. Terms related to translation and/or language acquisition entered into search engines result in Babylon often appearing among the top "organic" search results, results that are not based on payment of any sort, though Search Engine Optimization (SEO) plays a key role in optimizing the search engine results. Babylon's products, services and marketing initiatives are supported by the company's call center, which is responsible for online sales support, telemarketing campaigns and corporate sales. The Babylon Call Center operates 24 hours a day with service available in dozens of languages. Sales related to products marketed by the call center increased from 2008 to reach \$6.5m in 2010 and decreased slightly to \$5.9m in 2011.

Online Advertising Campaigns

Another marketing mechanism utilized by Babylon is paid online advertising, advertising for which Babylon pays based either on performance (click or action) or on impression (number of times the add is shown). These marketing campaigns are evaluated and implemented according to the spread between the Cost Per Click (CPC) rate and the Pay Per Click (PPC) rate, which is essentially the cost of advertising Babylon's software (per download) compared to the average revenue generated (per download) from translation-related services—purchasing Babylon's translation software, for example—as well as from advertising-related revenue. If the spread is significant enough to warrant a marketing campaign targeting a specified market or region, Babylon invests in that campaign and adjusts this investment according to the fluctuations in the associated advertising costs and generated revenue (Exhibit 22).

In the United States for the second half of 2011, Babylon earned 64% of its advertising revenue from performance-based advertising as opposed to 31% from impression-based.¹³ While Google is the main source of Babylon's advertising revenue, Babylon has active partnerships with other leading

search engines—Yahoo!, Bing, Ask, etc.—as well as with many business entities around the world in order to increase the number of Babylon 9 downloads, especially in developing countries where local search engines offer a viable economic alternative for earning money.

Affiliate Distribution Network

Babylon has developed an extensive and global distribution network based on the affiliate model, a model in which licensing agreements are signed with affiliates. Babylon has formed many strategic partnerships with companies from all over the world to gain access to local markets, especially in developing economies. These strategic partnerships can involve the purchase of online advertising space, or be based on revenue-sharing agreements with affiliate distributors of Babylon's products. Babylon markets its products in Brazil, the company's largest market in terms of translation services, and other countries with sizable translation and premium language product markets, including Mexico, North America, Germany, Spain, France and Italy.

Research & Development

Babylon spent many of its first years developing the translation and dictionary databases that form the backbone of its translation software, and the work entailed in expanding and updating these language databases is currently outsourced by the company. The rule for determining the development of a potential product is simple: if the product has the potential to generate substantial daily revenue, it can be developed in-house by the Babylon staff. Projects that fall short of generating enough daily revenue are typically outsourced or developed in partnership with another company. Babylon's Electronic Dictionary translator, for example, was developed in cooperation with an external partner.

Resources, Capabilities and Core Competencies

Babylon's main core competencies are based on translation and premium language products and services; the success of the company, however, results from the total range of resources, capabilities and core competencies it has developed over the last 15 years, including a strong corporate identity based on an internationally recognized brand, patented technology, a strong

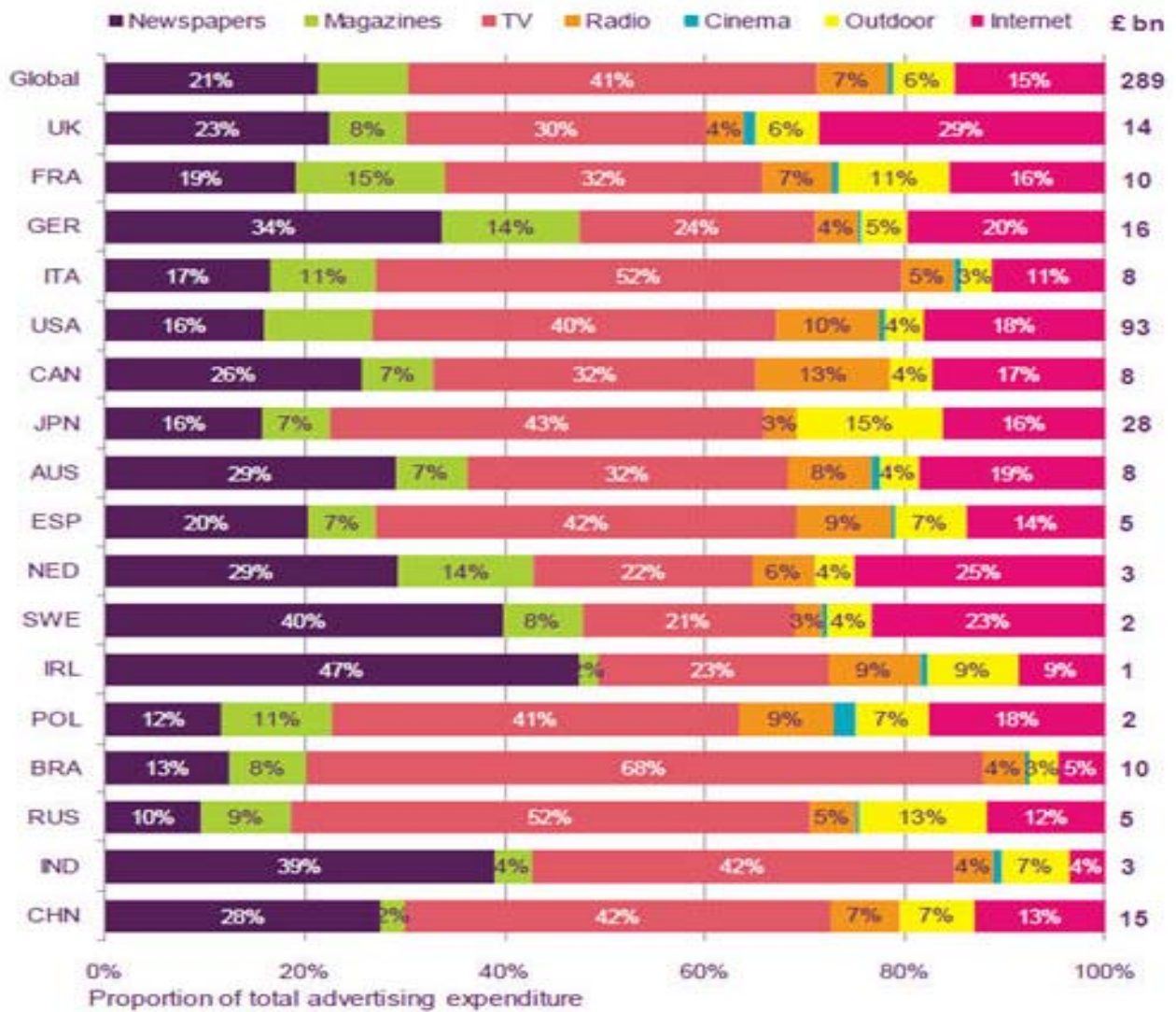
customer base with over 100 million users, a partner network based on revenue-sharing agreements (with search engines and affiliate distributors) and strong internet marketing capabilities. Babylon has leveraged its resources, capabilities and core competencies to grow significantly in the last three years, mainly due to a sharp increase in advertising revenue. As a result, it increased its revenue from \$18.8m in 2008 to \$61.9m in 2011, a 229% increase, resulting in an increase in profit from \$3.1 million in 2008 to \$8.3 in 2011, a 167% increase (Exhibits 23,24,25).

The Next Quantum Leap

In 2012, Babylon is facing a strategic dilemma concerning the directions it needs to take in order to maintain its high-speed growth for the next five years. On the one hand, Babylon can still grow substantially by maintaining its current business activities in search-based advertising, translation software, premium language products and corporate Enterprise solutions. On the other hand, it cannot ignore the rapid development of the mobile internet platform as well as of social networks even though there are currently no sustainable business models available for these technology platforms that can ensure the flow of substantial revenues and profits over time. Thus, the company must develop a comprehensive strategy that will not only ensure its continued rapid growth, but also take into consideration the potential afforded by emerging technology platforms in a dynamic business environment marked by great uncertainty.

Appendixes

Exhibit 1: Advertising Expenditure by Geography, 2010



Source: Source: Warc data (www.warc.com)

Exhibit 2: Main Search Providers

Baidu

Baidu Inc. is a Chinese web service company that provides internet search services and has been traded on the NASDAQ since 2007. It was founded in 2000 and is currently headquartered in Beijing,

the People's Republic of China. The company offers both Chinese language and Japanese language search platforms, platforms that enable users to find relevant information online, including internet sites, news, images, documents and multimedia files through the links provided on its websites. Baidu also offers various search products and a web directory, online search-based community products, mobile search and related products, products and tools for website owners and customers, e-commerce and entertainment products, and software and related search products.

Baidu provides online marketing and auction-based P4P services that enable its customers to reach users searching for information related to their products or services. The company's online marketing customers consist of small and medium-sized enterprises, large domestic corporations and Chinese divisions or subsidiaries of multinational corporations primarily operating in the following industries: medical, machinery, education, software and online games, tourism and ticketing, transportation, franchising, business services, electronic products, information technology services, financial services, construction and decoration, and household appliances, as well as other industries. Baidu sells its online marketing services directly as well as through its distribution network. The corporation posted yearly sales of \$1.2 billion in 2010 with more than \$0.5 billion in profit. In Q4 of 2010, there were estimated to be 4.02 billion search queries in China, of which Baidu has a 56.6% market share. In Q2 of 2011, Baidu was estimated to have a 76% market share of China's total internet-search revenue.

Bing

Formerly known as Live Search, Windows Live Search, and MSN Search, Bing is a web search engine unveiled by Microsoft in 2009. MSN Search, first launched in the third quarter of 1998 by Microsoft consisted of a search engine, index and web crawler. Microsoft then upgraded MSN Search to provide its own self-built search engine results, the index of which was updated weekly and even, at times, daily. Windows Live Search was unveiled in March 2006 with the final release in September 2006, thereby officially replacing MSN Search. The new search engine used search tabs that include web, news, images, music, local, desktop options as well as Microsoft Encarta. As an effort to create a new identity for Microsoft's search services, Live Search was officially replaced by Bing on 3 June 2009. Before the launch of Bing, the market share of Microsoft's search efforts (MSN and Live search) had been small but steady.

Google

Google Inc. was founded in 1998 and is currently headquartered in Mountain View, California. This onetime startup generated revenue of over \$37.9 billion and a profit of over \$9.7 billion in 2011. Google is a technology company and maintains an index of websites and other online content for users, advertisers, Google network members and other content providers that enables them to search for content on the web on its search platform. In addition, Google offers AdWords (an auction-based advertising program), AdSense (a program that enables websites that are part of the Google Network to deliver ads from AdWords advertisers), Google Display (a display advertising network that is comprised of videos, text, images and other interactive ads), DoubleClick Ad Exchange (a real-time auction marketplace for the trading of display ad space), Google Local (a provider of local information on the web), and YouTube (a provider of video, interactive and other ad formats for advertisers). Google also provides Google Mobile, a program that optimizes Google's applications for mobile devices in browser and downloadable form as well as enabling advertisers to run search-based ad campaigns on mobile devices.

Google, in addition, offers Android (an open-source mobile software platform), Google Chrome OS (an open-source operating system), Google Chrome (a web browser), Google+ (a social network to share different things online with different people), Google TV (a platform for the consumers to use the television and the Internet on a single screen) and Google Books (a platform to discover, search and consume content from printed books online). Furthermore, Google provides Google Apps (a cloud computing suite of message and collaboration tools that primarily include Gmail, Google Docs, Google Calendar, Google translate, and Google Sites), Search Appliance (a search technology for use within enterprises), Google Site Search (a custom search engine), Google Commerce Search (a program for online retail enterprises), Google Maps and Google Earth Enterprise (a firewall software solution for imagery and data visualization).

Yahoo!

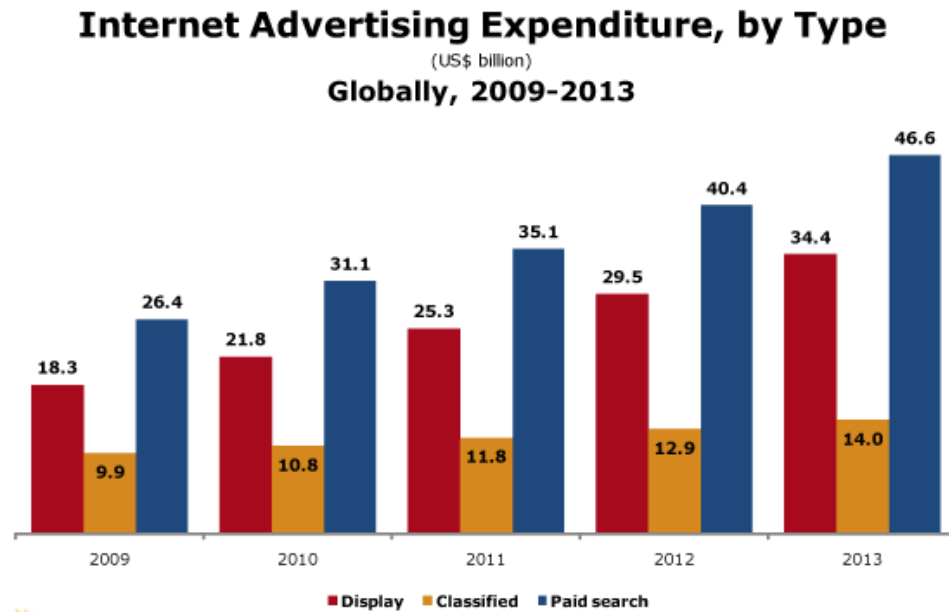
Yahoo! Inc., together with its subsidiaries, operates as a digital media company that delivers personalized digital content and experiences through various devices worldwide. The company, founded in 1994 and based in Sunnyvale, California, offers online properties and services to users; and a range of marketing services to businesses. Its communications and community offerings

include Yahoo! Mail, Yahoo! Messenger, Yahoo! Groups, Yahoo! Answers, Flickr, and Connected TV, which provide a range of communication and social services to users and small businesses, enabling users to organize into groups and share knowledge, common interests, and photos. Its search products comprise Yahoo! Search and Yahoo! Local, available free to users to navigate the internet and discover content. The company's marketplaces offerings and services include Yahoo! Shopping, Yahoo! Travel, Yahoo! Real Estate, Yahoo! Autos, and Yahoo! Small Business, which allow users to research specific topics, products, services, or areas of interest by reviewing and exchanging information, obtaining contact details, or considering offers from providers of goods, services, or parties with similar interests. Its media offerings comprise Yahoo! Homepage, Yahoo! News, Yahoo! Sports, Yahoo! Finance, My Yahoo!, Yahoo! Toolbar, Yahoo! Entertainment & Lifestyles, Yahoo! Contributor Network, and Yahoo! Pulse, which are designed to engage users with online content and services on the Web. The company also offers marketing services, such as display and search advertising, listing-based services, and commerce-based transactions to advertisers. In addition, it provides software and platform offerings for third-party developers, advertisers, and publishers, such as Yahoo! Developer Network, Yahoo! Open Strategy, Yahoo! Application Platform, Yahoo! Updates, Yahoo! Query Language, and Yahoo! Search BOSS. The company has strategic alliances with Nokia and ABC News, Inc. On 29 July 2009, Microsoft and Yahoo! announced that they had made a 10-year deal in which the Yahoo! search engine would be replaced by Bing. Yahoo! will get to keep 88% of the revenue from all search ad sales on its site for the first five years of the deal, and have the right to sell adverts on some Microsoft sites. Yahoo! Search will still maintain its own user interface, but will eventually feature "Powered by Bing" branding. All Yahoo! Search global customers and partners are expected to be transitioned by the first half of 2012.

Yandex

With a history that traces back to 1990, Yandex is a Russian IT company that operates the largest search engine in Russia, with a 64% market share in 2011 and \$440 million in revenues for that year. Yandex has also developed a number of internet-based services and products. It is ranked as the fifth largest search engine worldwide, with more than 3 billion searches, or 1.7% of global search as of September 2011. The Yandex.ru home page has been rated as the most popular website in Russia with more than 56 million users in 2011 from all over the world. The website also operates in Belarus, Kazakhstan, Ukraine and Turkey.

Exhibit 3: Internet Advertising Expenditure by Type (\$US Billions)



Source: ZenithOptimedia, "Global Ad Expenditure to Return to Pre-recession Peak Level," July 2011

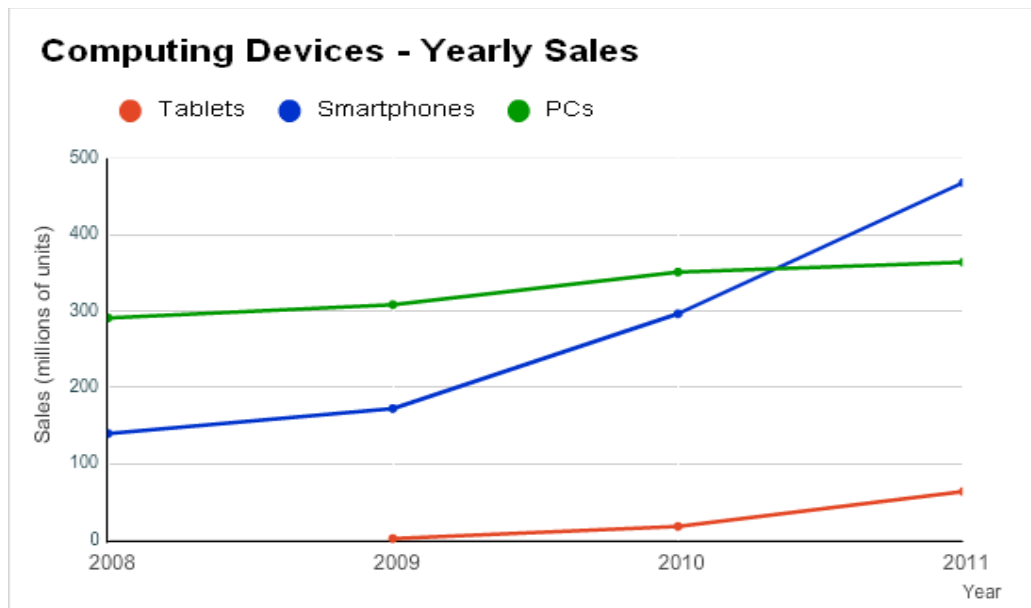
Exhibit 4: Main Search Company Revenues World Wide (\$US Billions)

| | 2009 | 2010 | 2011 | Main Territories |
|--------|-------|-------|------|------------------|
| Google | 23.65 | 29.32 | 37.9 | U.S.A, Europe |
| Bing* | 2.12 | 2.2 | 2.53 | U.S.A |
| Yahoo! | 6.46 | 6.32 | 4.98 | U.S.A |

Sources: Company websites & Comscore

*Revenues of the Online Services Division, which houses all Microsoft's online operations, including MSN and Bing.

Exhibit 5: Global Computing Devices Platform Forecast



Source: Gartner, iSuppli Market Intelligence

Exhibit 6: Main Mobile Device Manufacturers

Apple

Revolutionary to its industry, Apple was founded in 1976 by the late Steve Jobs and is currently headquartered in Cupertino, California. Apple, together with its subsidiaries, designs, manufactures and markets mobile communication and media devices, personal computers and portable digital music players, as well as selling related software, services, peripherals, networking solutions, third-party digital content and applications worldwide. Its products and services include the iPhone, iPad, Mac, iPod, Apple TV, the iOS and Mac OS X operating systems, iCloud, and various accessory and support offerings, as well as a range of consumer and professional software applications. The company sells its products and services to consumers, small and mid-sized businesses, educational institutions and governmental agencies 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. In addition, it offers various third-party iPhone, iPad, Mac, and iPod compatible products, including application software, printers, storage devices, speakers, headphones and other

accessories and peripherals, through its online and retail stores. Digital content and applications are marketed through the iTunes Store, App Store, iBookstore and Mac App Store. As of 24 September 2011, the company had 357 retail stores, including 245 stores in the United States and 112 stores internationally. Overall, this fast-growing company has approximately 60,400 employees and had revenues of more than \$108 billion in 2011, an almost 66% increase compared to the revenues reported in 2010.

Motorola

Motorola Mobility Holdings Inc., formerly the Mobile Devices division of Motorola Inc. until January 2011, is a communications corporation headquartered in the Chicago suburb of Libertyville, Illinois. Motorola's networks division (called the Personal Communication Section (PCS) prior to 2004) pioneered the "flip phone" with the StarTAC in the mid-1990s. By 2000, Motorola had produced another innovative hit product, the (original) RAZR—an ultra-thin flip phone. Motorola had a commanding lead in the cell phone market, but was outperformed by global rivals such as Nokia and Samsung due to its slow adoption of digital technology; and indeed, Motorola failed to enter the global smartphone market until the 2010.

Motorola continued to experience severe problems with its cell phone handset division, recording a record \$1.2 billion loss in the fourth quarter of 2007. Its global competitiveness continued to decline, resulting in a decrease in market share from 18.4% in 2007 to 9.7% in 2008. By 2010, Motorola's global market share had dropped to seventh place, leading to speculation of the company's impending bankruptcy. Motorola, which has 20,500 employees, posted \$13.06 billion in revenues with a loss of \$145 million in 2011. On 15 August 2011, Google Inc. announced that it had agreed to acquire the company for \$12.5 billion, including a sizeable portfolio of patents owned by Motorola. On 13 February 2012, Google received final approval for the purchase from the United States Department of Justice and the EU.

Nokia

Nokia Corporation was founded in 1865 and is headquartered in Espoo, Finland. It provides telecommunication infrastructure, hardware, software and services worldwide. The company offers feature phones, smartphones and smart devices, including related services and applications. It

markets feature phones and smartphones under the Nokia brand and mobile devices under the Vertu brand. Nokia also develops a range of location-based products and services for consumers as well as platform services and local commerce services for device manufacturers, application developers, internet services providers, merchants and advertisers, not to mention digital map information and related location-based content and services for mobile navigation devices, automotive navigation systems, internet-based mapping applications and government and business solutions. In addition, Nokia manufactures the Flexi Multiradio, a software-based radio that supports a global system for mobile communications, as well as third-generation mobile communications and long-term evolution radio technologies, all of which operate on a common internet protocol/Ethernet, optical or microwave transport technology. Services that the company offers are the following: network planning, optimizing and managing services; software and hardware maintenance, proactive and multi-vendor care and competence development services; network implementation; and consultation and systems integration services. Additionally, Nokia provides products for subscriber customer care automation, network and resource management, device and data management, network and service assurance, reporting and analytics, charging and billing, identity and campaign management and inventory management, as well as mediation and service brokerage, mobile browsing, messaging, multi-screen television, location-based services and a voice-based service solution for virtualized services in a private cloud environment. Nokia posted a \$1.9 billion loss in 2011, after two previous years of profit, with \$50.2 billion in yearly revenue.

RIM

Research In Motion (RIM), a global leader in wireless innovation, revolutionized the mobile industry with the introduction of the BlackBerry solution in 1999. Today, BlackBerry products and services are used by millions of customers around the world to stay connected to the people and content that matter most throughout their day. With \$19.9 billion in revenues in 2011 (33% in comparison to 2010), RIM was founded in 1984 and is currently based in Waterloo, Ontario. RIM employs 17500 people and operates offices in North America, Europe, Asia Pacific and Latin America. The company designs, manufactures, and markets wireless solutions for the worldwide mobile communications market. Through the development of integrated hardware, software and services, it provides platforms and solutions for seamless access to time-sensitive information, including email, phone, short messaging, internet and intranet-based applications and browsing. BlackBerry's wireless

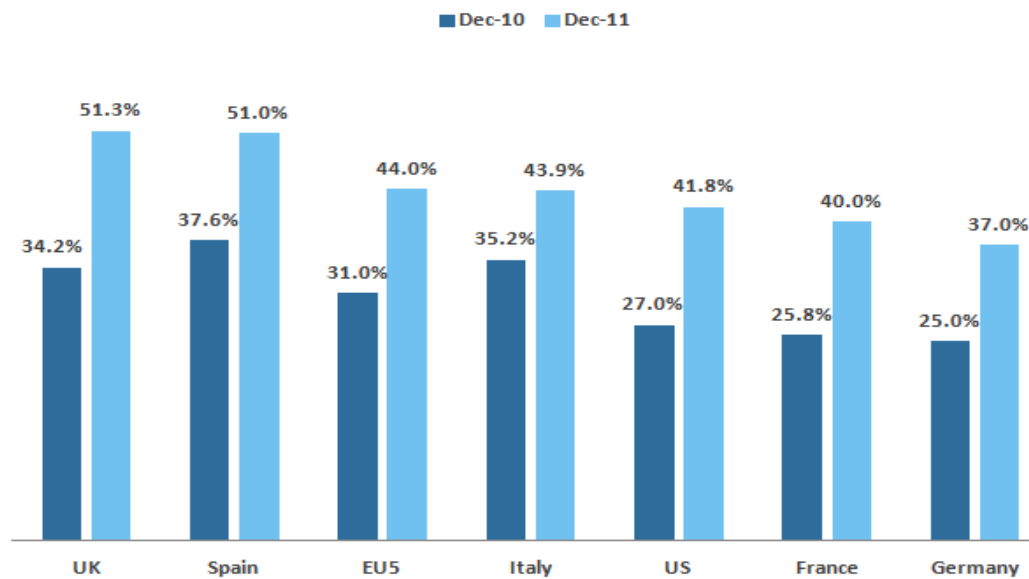
platform and the RIM Wireless Handheld product line have been designed by the company's software development tools and other software and hardware innovations.

RIM's BlackBerry smartphones use wireless, push-based technology that delivers data to the business and consumer mobile applications of its users. Its BlackBerry product line includes regular Blackberry phones, a smartphone portfolio and the BlackBerry PlayBook tablet. The company's BlackBerry enterprise solutions include the BlackBerry enterprise server, BlackBerry enterprise server express, BlackBerry mobile voice system and a host of other BlackBerry services. Its technology also enables third-party developers and manufacturers to enhance their products and services through software development kits, wireless connectivity to data and third-party support programs. In addition, the company offers BlackBerry technical support services, non-warranty repairs and nonrecurring engineering services. The BlackBerry App World provides BlackBerry smartphone users an electronic catalogue that aids in the discovery and download/purchase of applications directly from their BlackBerry smartphone. The company markets and sells its BlackBerry wireless solutions primarily through global wireless communication carriers and third-party distribution channels.

Samsung

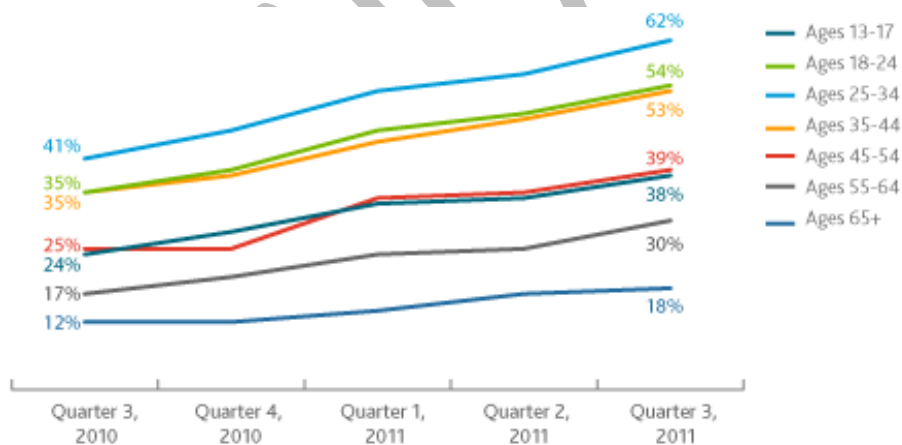
Samsung Group, founded in 1938, is a South Korean multinational conglomerate company headquartered in Samsung Town, Seoul. The group, which produces around a fifth of South Korea's total exports, posted a yearly revenue of \$220 billion in 2010 and employed nearly 344,000 people. Samsung comprises numerous subsidiaries and affiliated businesses, most of them united under the Samsung brand. Notable Samsung industrial subsidiaries include Samsung Electronics (the world's largest information technology company measured by 2010 revenues), Samsung Heavy Industries (the world's second-largest shipbuilder measured by 2010 revenues), Samsung Engineering and Samsung C&T. Other notable subsidiaries include Samsung Life Insurance, Samsung Everland (the oldest theme park in South Korea) and Cheil Worldwide (an advertising agency).

Exhibit 7: Smartphone Market Share of Total Mobile Phone Sales (%)



Source: comScore, 2012

Exhibit 8: Smartphone Penetration by Age Group (Q3 2010-Q3 2011, USA)



Source: Nielsen, 2011—reference?

Exhibit 9: Mobile Operating System by Geography, February 2011

| | Apple | Android | Nokia | Black Berry | Nokia | Samsung | Sonny Erikson | WAP | Other |
|---------------|-------|---------|-------|----------------|-------|---------|------------------|-----|-------|
| USA | 35% | 27% | | 26% | | | | | 11% |
| Brazil | | | 47% | | | 21% | 8% | | 24% |
| U.K | 42% | 12% | | 36% | | | | | 10% |
| France | 64% | 19% | 6% | | | | | | 11% |
| Spain | 56% | 20% | 14% | | | | | | 9% |
| Germ | 59% | 21% | | | 8% | | | | 12% |
| Russia | 12% | | 47% | | | | 12% | | 30% |
| India | | | 71% | | | 11% | 5% | | 13% |
| Japan | 58% | 23% | | | | | | 12% | 7% |
| S. | 13% | 84% | | | 1% | | | | 2% |
| China | 11% | 3% | | | 59% | | | | 27% |
| Austra | 74% | 11% | 9% | | | | | | 6% |
| Egypt | 5% | 4% | 80% | | | | | | 11% |
| Tunisi | 15% | | 47% | | | 17% | | | 21% |

Source: Gs. Statcounter.com/www.lcrossing.co.uk

Exhibit 10: Mobile Advertising Revenue by Region, Worldwide (\$US Millions)

| | 2010 | 2011 | 2015 EST |
|-------------------------------|----------------|----------------|---------------|
| North America | 304.3 | 701.7 | 5,791.4 |
| Western Europe | 257.1 | 569.3 | 5,131.9 |
| Asia/Pacific and Japan | 868.8 | 1,628.5 | 6,925 |
| Rest of the World | 196.9 | 410.4 | 2,761.7 |
| Total | 1,627.1 | 3,309.9 | 20,610 |

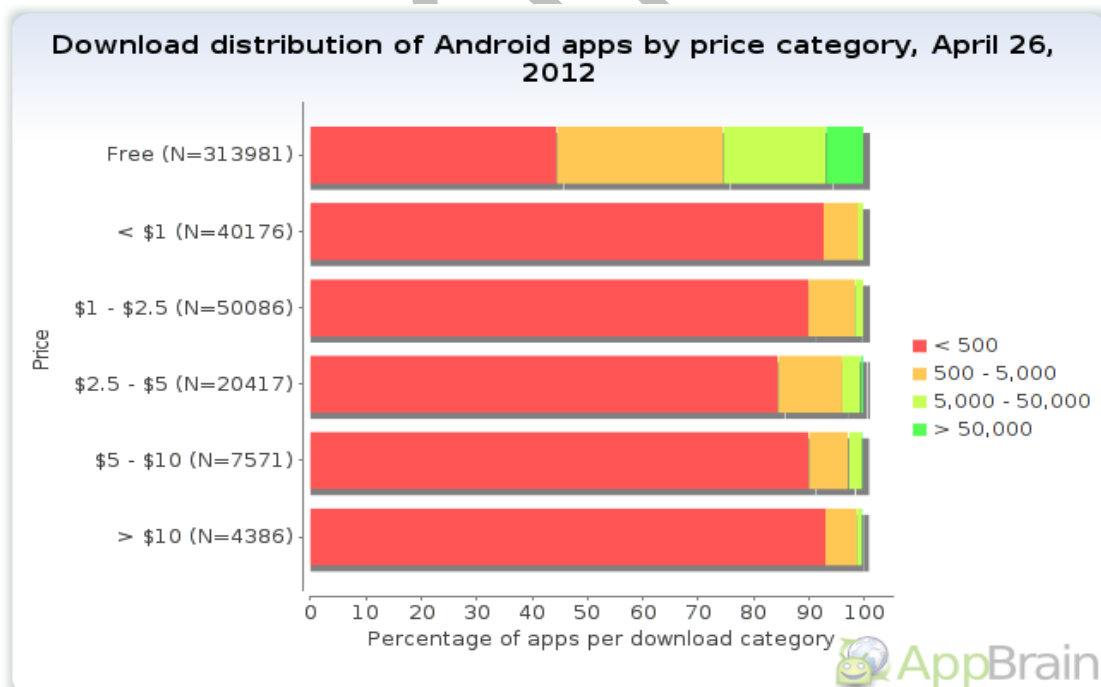
Source: Gartner, June 2011

Exhibit 11: US Mobile Apps vs. Web Consumption, Minutes per Day



Source: comScore, 2011

Exhibit 12: Downloaded Distribution of Android Apps by Price, April 26, 2012



Source: www.appbrain.com/stats/free-and-paid-android-applications

Exhibit 13: The Language Gap

| Native Speakers by Language (%) * | | Internet Content by Language (%) | |
|-----------------------------------|-----|----------------------------------|-----|
| English | 27% | English | 57% |
| Chinese | 24% | Chinese | 7% |
| Spanish | 8% | Spanish | 5% |
| Japanese | 5% | Japanese | 5% |
| | | German | 4% |
| Portuguese | 4% | Russian | 4% |
| Other | 32% | Other | 18% |

Sources: * intrnetworldstats.com as of March, 2011

** w3techs.com as of October, 2011

Exhibit 14: Babylon English Website

babylon Store | Add Content | Products | Business Customers | Affiliates | Help & Support | About us | English

Babylon 9

Simply Translate

Simple One-click Translation in any Application

Free Download!

Free Trial

One click translation software from any language to any language

- Easy to install
- Easy to use
- Leading dictionary packs – Oxford, Britannica, Wikipedia

Free Download

Buy Now!

Starting at \$9.70

Get Babylon Now!

- Access to over 2000 dictionaries & glossaries
- Wikipedia inside

Buy Now!

Learn a language

Learn any language, the easy, fun and fast way

Learn from the comfort of your own computer, catering to all levels - from beginners to Advanced

Get it Now

Human Translation

Let the Pros Do It!

Thousands of professional translators from all over the world are registered with Babylon's human translation service, providing fast and accurate translations in over 32 languages for business and personal needs.

Translate Now!

Babylon 9 features:

- Available in over 75 languages >>
- Over 2,000 Dictionary titles >>
- Wikipedia @ a click in over 25 languages >>
- Live Translation Community NEW >>
- Spelling and Proofreading NEW >>
- Human Voice NEW >>
- Integrates seamlessly into Microsoft Office Spellers >>
- Web Page & Document Translation >>

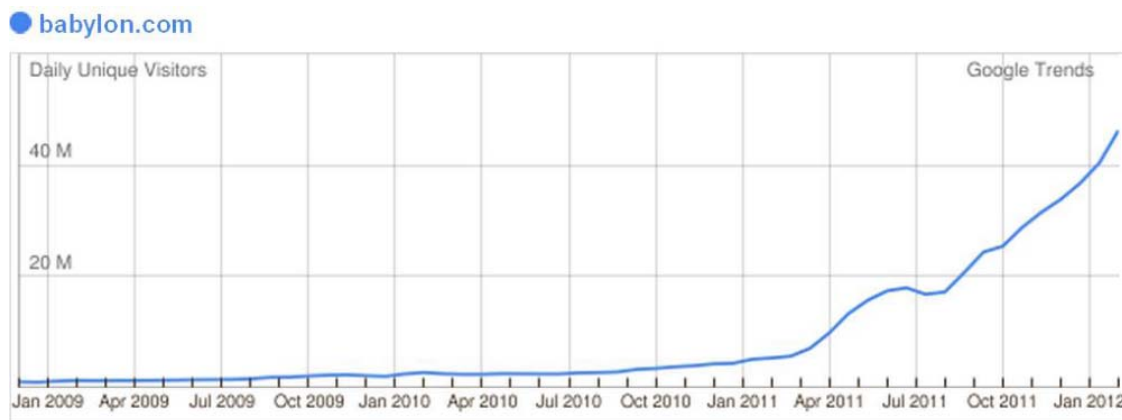
Download Now!

Business Customers

Babylon Improves Communication and Productivity

Source: Babylon.com

Exhibit 15: Babylon Website Daily Visitors 2009-2012



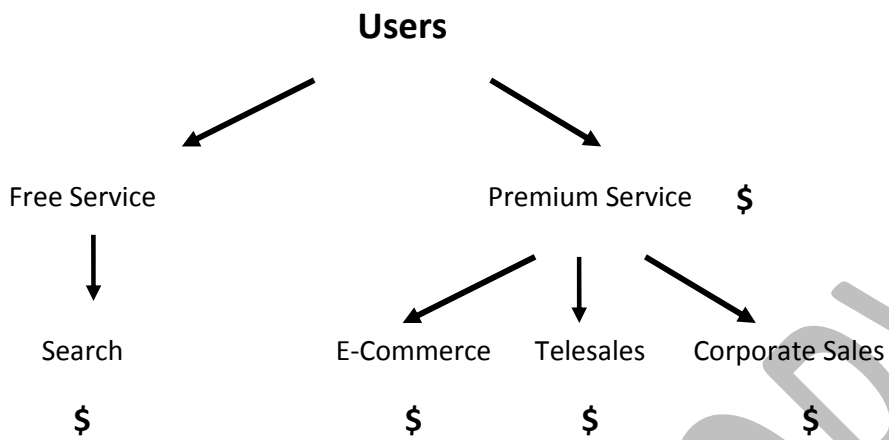
Source: trends.google.com, February 2012

Exhibit 16: Babylon Traffic Rank 2010- 2012



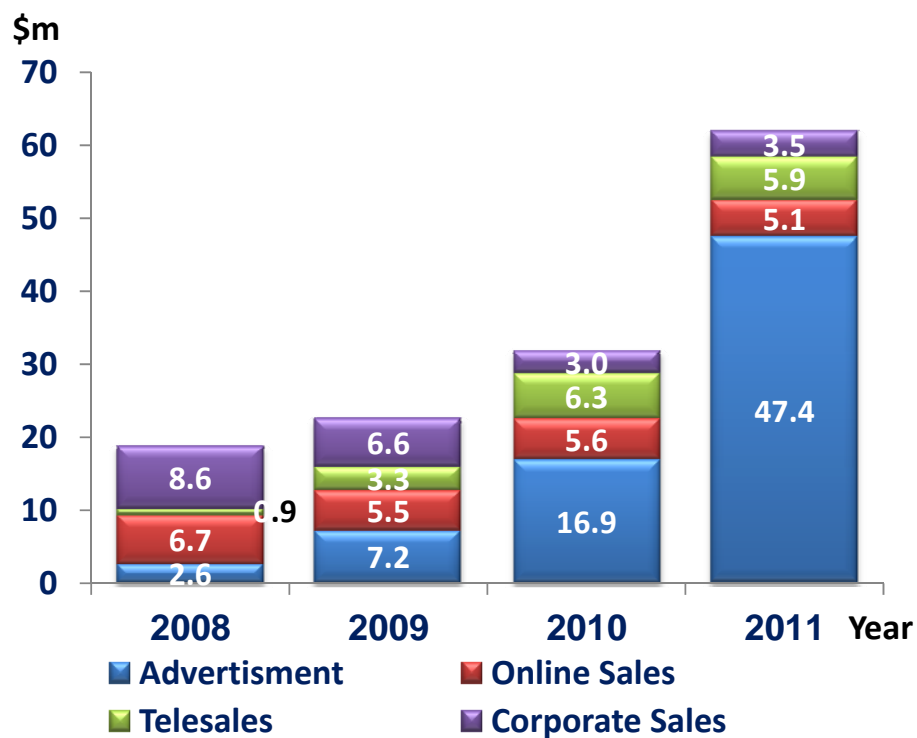
Source: alexa.com, February 2012

Exhibit 17: Babylon Business Model



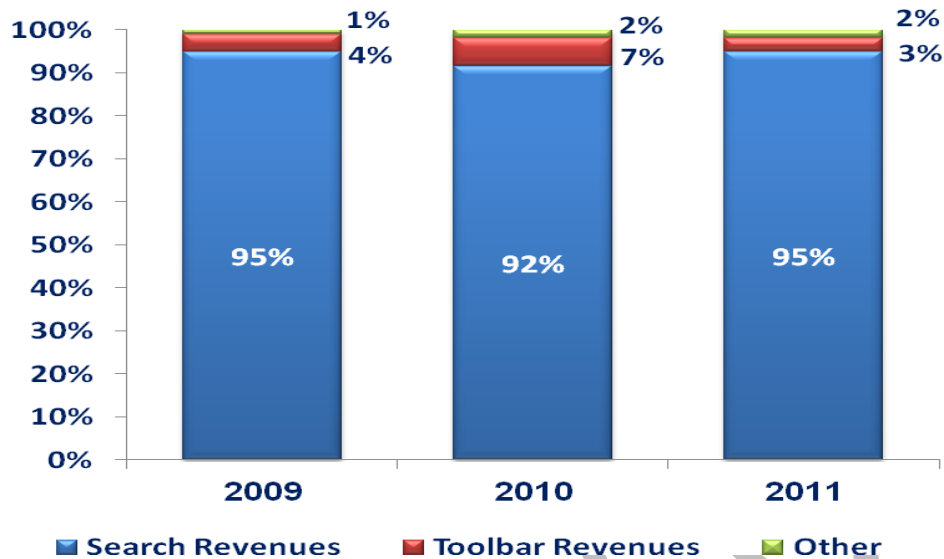
Source: Company data

Exhibit 18: Babylon Revenues by Growth Engines



Source: Company Data

Exhibit 19: Babylon Internet Marketing and Advertising Revenues by Source



Source: Company Data

Exhibit 20: Babylon Revenues by Search Engines- \$ Million

| | 2009 | 2010 | 2011 |
|--------|------|------|------|
| Google | 26 | 27 | 66 |
| Bing | * | 18 | * |

* Less than 10%

Source: Company Data

Exhibit 21: Babylon Service and Product Portfolio

Translation Program

Babylon 9, the current version of the translation program, is available on the Windows and Macintosh operating systems. The translation program is activated from the computer desktop, and enables the translation of a word or a phrase in a single click of the computer mouse, a feature based on the unique technology developed by the company. The translation program can be

purchased as a permanent license or as a monthly/annual subscription. In addition to the basic license, users can purchase upgrades and additional add-ons as described in the following descriptions.

Premium Content

Babylon offers its users the option to access over 2000 dictionaries of the largest publishing houses in the world, including Britannica, Merriam-Webster, Oxford, and Larousse. The purchase of additional premium content is optional and depends on the type of package originally purchased by the client. Content packages are designed by bundling several dictionaries and other content tailored to meet market demand and the individual needs of the client; the purchase of single add-ons is also an option. This premium content can be purchased on a permanent license or on a monthly/annual subscription. In exchange for the additional product sales, Babylon pays royalties to the publishing houses based on actual sales.

Babylon Enterprise

Babylon Enterprise, an information retrieval solution, is a service Babylon developed for large organizations that enables fast access to and the retrieval of information from the organization's internal databases and improvement in the organization's internal working processes. Babylon Enterprise is derived from the company's translation program technology platform, and is installed in dozens of large enterprises, overwhelmingly in Israel, with some customers located in Germany and Eastern Europe. Babylon Enterprise can be purchased as a permanent license or as an annual license. In addition, support is offered for purchases on three service levels: Silver, Gold and Platinum.

Smartphone Applications

Babylon offers a translation program for various mobile platforms—iPhone, Android and Blackberry—and is planning to expand to additional platforms.

Human Translation Service

A service that connects Babylon's global network of translators to customers requiring translation services, the Human Translation Service operates from the Babylon website. The customer submits

the document to be translated by uploading it to the company's website, and then indicates both the language of origin and the language to which the document needs to be translated; price offers are then sent to the potential customer from selected translators. Service purchasing is done within the Babylon website, and the customer receives the translated document by email.

Electronic Dictionary

Babylon offers a bilingual dictionary authorized by the Israeli Ministry of Education. The dictionary translates more than six million words, expressions, phrases, abbreviations and acronyms. In addition, the electronic dictionary includes a world clock, currency and size conversion tools, a calculator, a phone book and additional features. Babylon sells the rights to develop products in these fields to business partners.

Language learning

Babylon offers language learning services in a large variety of languages.

Spelling Service

Babylon offers a spelling improvement program based on a third-party program.

Exhibit 22: Babylon Internet Marketing and Advertising Portfolio

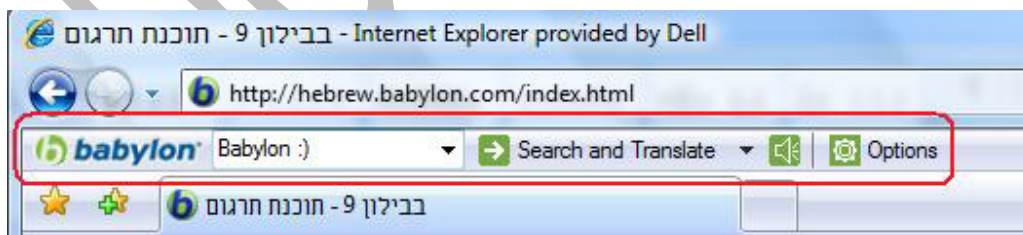
Search

Revenue from search is created mostly in cooperation with such search engines as Google and Ask. In this model, the user downloads the Babylon software and has the option to utilize the free translation service that is embedded within the search engine. Babylon's search revenues are generated from two major models: (1) Payment Per Action or Download (PPD)—payment per installation and (2) Payment Per Click (PPC)—payment per click on each sponsored link.

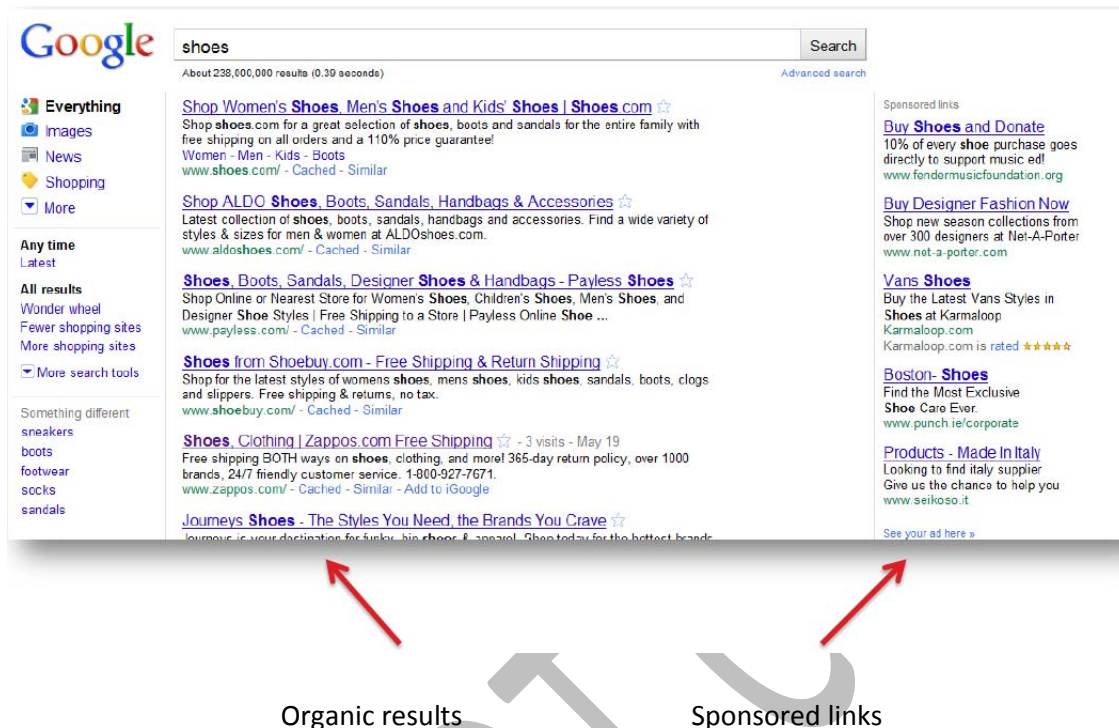
A sample of the combined search engine and Babylon:



A sample of the Babylon toolbar, including the search engine in the browser:

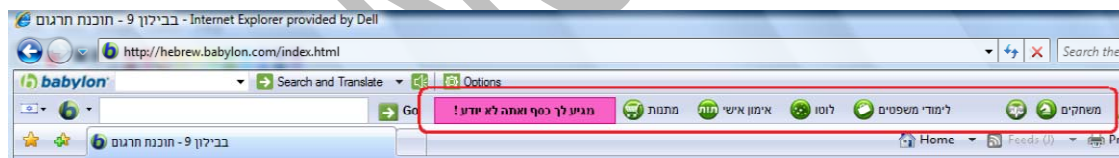


A sample of search results:



Toolbar

Revenue from this channel is based on the selling of advertising space on the Babylon toolbar.



Website

Revenue from this channel is based on the sale of advertising space within the sites operated by Babylon.

Bundle

Revenue based on offering additional products while installing Babylon 9. Revenue is paid to Babylon by the added on product company.

Exhibit 23: Babylon Employees by Division/Area of Activity 2007-2011

| | 2007 | 2008 | 2009 | 2010 | 2011 |
|-------------------|------|------|------|------|------|
| Headquarters | 16 | 16 | 17 | 14 | 11 |
| Technical Support | | | | 10 | 20 |
| R&D | 25 | 25 | 24 | 36 | 48 |
| Sales & Marketing | 25 | 55 | 101 | 86 | 86 |
| Linguistics | 8 | | | | |
| Total | 74 | 96 | 142 | 146 | 165 |

Source: Company Data

Exhibit 24: Babylon Ltd. Consolidated Statement of Income

| Babylon Ltd. Consolidated Statement of Income (\$US Thousands) | | | | |
|--|---------------|---------------|---------------|---------------|
| | 2008 | 2009 | 2010 | 2011 |
| Revenues from sales | 18,800 | 22,600 | 31,800 | 61,900 |
| Cost of sales | 2,448 | 2,430 | 2,356 | 2,394 |
| Gross profit | 16,352 | 20,170 | 29,444 | 59,506 |
| | 87.0% | 89.2% | 92.6% | 96.1% |
| | | | | |
| R&D expenses | 2,502 | 2,416 | 3,778 | 4,902 |
| Selling and marketing expenses | 8,191 | 12,062 | 17,225 | 41,296 |
| General and administrative expenses | 1,602 | 1,588 | 2,218 | 3,121 |
| Stock-based compensation | 506 | 612 | 496 | 789 |
| Total expenses | 12,801 | 16,677 | 23,718 | 50,108 |
| Operating income (loss) | 3,551 | 3,493 | 5,726 | 9,398 |
| | 18.9% | 15.5% | 18.0% | 15.2% |
| | | | | |
| Finance expenses, net | -275 | -80 | 142 | 266 |
| Income (loss) before taxes on income | 3,276 | 3,413 | 5,869 | 9,664 |
| | 17.4% | 15.1% | 18.5% | 15.6% |
| | | | | |
| Taxes on income (tax benefit) | | -1,581 | 1,086 | 1,785 |
| Net income (loss) from operation | 3,276 | 4,994 | 4,783 | 7,879 |
| | 17.4% | 22.1% | 15.0% | 12.7% |
| | | | | |
| Profit (loss) from financial assets net | -81 | 94 | -20 | -2 |
| Foreign currency translation adjustments | -49 | 23 | -1,045 | 404 |
| Total other profit (loss) | -129 | 117 | -1,065 | 402 |
| | | | | |
| Total net income (loss) | 3,146 | 5,111 | 3,718 | 8,281 |

Source: Company data, exchange rate NIS/US \$ is based on Exhibit 27

Exhibit 25: Babylon Ltd. Balanced Sheets

| Babylon Ltd. Balance Sheet (\$US Thousands) | | | | |
|---|---------------|---------------|---------------|---------------|
| | 2008 | 2009 | 2010 | 2011 |
| Current assets: | | | | |
| Cash and cash equivalents | 11,306 | 13,338 | 8,377 | 8,353 |
| Trade receivables | 3,735 | 5,613 | 5,157 | 13,240 |
| Other accounts receivable and prepaid expenses | 525 | 683 | 663 | 1,889 |
| | 15,566 | 19,634 | 14,198 | 23,482 |
| Non-current assets | | | | |
| Deposits | 69 | 88 | 82 | 101 |
| Investment in available-for-sale financial assets | 1,415 | 256 | 266 | 274 |
| Property, plant and equipment | 626 | 426 | 477 | 687 |
| Intangible assets | 388 | 554 | 856 | 1,218 |
| Deferred taxes | | 1,581 | 580 | 263 |
| | 2,497 | 2,904 | 2,261 | 2,542 |
| | | | | |
| Total Assets | 18,063 | 22,539 | 16,459 | 26,024 |
| Current liabilities | | | | |
| Trade payable | 888 | 1,532 | 779 | 2,552 |
| Deferred revenues | 1,007 | 283 | 429 | 405 |
| Accounts payable | 1,611 | 1,642 | 1,703 | 6,373 |
| Employee and payroll accruals | | | 1,073 | 1,484 |
| | 3,506 | 3,457 | 3,984 | 10,814 |
| Non-current liabilities | | | | |
| Employee benefit liabilities | 155 | 39 | 45 | 88 |
| Equity attributable to equity holders | 14,402 | 19,043 | 12,430 | 15,122 |
| Total liabilities and shareholder equity | 18,063 | 22,539 | 16,459 | 26,024 |

Source: Company data, exchange rate NIS/US \$ is based on Exhibit 27

Exhibit 26: Shekel / \$US Yearly Average Exchange Rates

| <u>Year</u> | <u>Shekel/\$US</u> |
|--------------------|---------------------------|
| 2008 | 3.59 |
| 2009 | 3.93 |
| 2010 | 3.73 |
| 2011 | 3.61 |

¹ Tanakh: The Holy Scriptures, The New JPS Translation According to the Traditional Hebrew Text, The Jewish Publication Society, 1985.

² The size and growth rate of the Internet: www.dtc.umn.edu

³ Gaming companies can earn revenue not just from the download purchase, but also from an array of brand-related products and virtual goods.

⁴ ComScore Inc.: www.comscore.com

⁵ Facebook, Newsroom: www.newsroom.fb.com/content/default.aspx?NewsAreaId=22

⁶ Gartner Says Android to Command Nearly Half of Worldwide Smartphone Operating System Market by Year-End 2012: www.gartner.com/it/page.jsp?id=1622614

⁷ Engadget: www.engadget.com/2011/10/17/idc-and-gartner-lenovo-leaps-past-dell-for-second-place-still

⁸ Gartner Says Android to Command Nearly Half of Worldwide Smartphone Operating System Market by Year-End 2012: www.gartner.com/it/page.jsp?id=1622614

⁹ Gartner Says Apple iOS to Dominate the Media Tablet Market Through 2015, Owning More Than Half of It for the Next Three Years: www.gartner.com/it/page.jsp?id=1626414

¹⁰ AppBrain: www.appbrain.com/stats/number-of-android-apps

¹¹ Apple Website: www.apple.com/iphone/built-in-apps/app-store.html

¹² Google Translate, Yahoo! Babel Fish and Microsoft Bing Translator are online translators that compete with Babylon's translation software.

¹³ Babylon: Financial Statement 2011