Kaspersky Lab: From Russia with Anti-virus

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Abstract:

Kaspersky Lab is a provider of information technology (IT) security products such as anti-virus, anti-spam and network security software. It is Russia's largest software company and the only Russian firm that ranked among the world's top 100 software companies. This case presents several interesting features of the company and its environment. The foci of the case are on potential barriers facing firms based in emerging economies in their internationalization initiatives and negative country of origin effects associated with emerging economies.

Keywords: Kaspersky Lab | Anti-virus products | Emerging economies | Russia | Country of origin | Cybercrime

Article:

Our growth strategy bases on several pivotal points, those are: deliver best protection to all our customers, be they consumers or corporate clients and develop best of breed technologies that ensure reliable protection. Our growth rates prove that it is a good strategy and it will bring us to the leading position on the marketplace,

said the Moscow-based Kaspersky Lab's (KL) CEO and Chairman Eugene Kaspersky outlining vision and strategy for the company he co-founded in 1997 (itpro.co.uk, 2011). Headquartered in Russia, KL provides information technology (IT) security software such as anti-virus, anti-spam and network security software to protect computer users against viruses, hackers and spam. In 2010, KL was the world's fourth biggest IT security company. For KL's success in fighting cybercrime, the company was ranked No. 32 in Fast Company's, 2011 list of the world's 50 most innovative companies (fastcompany.com, 2011).

The company lagged behind its chief rivals substantially. The two US household names Symantec and McAfee as well as Japan's Trend Micro were much bigger than KL (Bachman, 2010). Symantec and McAfee were described as "an elephant to Kaspersky's mouse" in the global software security market, which was estimated at \$16.6 billion in 2010 (Rapooza, 2011). KL's other top competitors included Finland's F-Secure, Britain's Sophos, Spain's Panda Software and Norway's Norman, Czech Republic's AVG Technologies, Romania's BitDefender, Israel's Check Point and Slovak Republic's ESET.

KL's inception and the early years

Eugene Kaspersky studied in the A.N. Kolmogorov School in Moscow that specializes in physics and mathematics. In 1987, he graduated with a degree in mathematical engineering from Moscow's Institute of Cryptography, Telecommunications and Computer Science. After graduation, he worked for the Russian defense department as a cryptologist (Swartz, 2008) and then in KAMI Information Technologies Center. In 1994, Natalya Kaspersky joined him in KAMI, and later on in 1997 they co-founded an independent company. Eugene Kaspersky noted that KL was launched "with zero investment and external funding" (fastcompany.com, 2011). He commented that Natalya Kaspersky's sales and public relations skills greatly helped the company.

Before starting KL, Eugene Kaspersky had developed some anti-virus products to pursue his hobby of capturing computer viruses (Kramer, 2010b). A complete virus protection package, AntiViral Toolkit Pro (AVP) was the first product he developed. In a series of independent tests conducted by Germany's Hamburg University, this product won top marks. A virus encyclopedia was among Eugene Kaspersky's early works, which provided analysis and descriptions of tens of thousands of viruses and how they functioned (Arnold, 2011). KL developed many technological standards for the anti-virus industry (Singh, 2009).

The company and its environment

As of August 2011, Eugene Kaspersky was the controlling shareholder of the company. General Atlantic (GA) became the second largest shareholder in January 2011. Natalya Kaspersky is a significant minority shareholder. The remaining part of K aspersky Lab shares belongs to the management team[1].

Also in August 2010, the company launched an LTI plan which is an employee stock option program. Over the next five years 10 per cent of company shares will be distributed between the company's top managers and key employees.

KL was Russia's largest software company and the only Russian firm among the world's top 100 software companies. In 2009, the market research firm, IDC's study indicated that KL was the world's 76th biggest Packaged Software[2] Vendors (ranked by 2008 revenue; Bachman, 2010). As of 2011, KL was Europe's largest anti-virus company and the world's largest privately-held internet security company.

Tables I and II present some indicators related to KL's growth and reputation. While the company performed most of the R&D activities in Russia, its R&D centers were also located in some regional offices – in the USA and in China (Quintura, 2010). In 2010, KL got about 84 per cent of its sales outside Russia (Arnold, 2011).

Year	No. of employees	Revenue (million, US\$)	Geographic breakdown of KL revenue	Competitors' performance
2004		24 ^a		
2006		67		
2007	900 ^b	130	Russia: US\$23.4 million ^c , CIS & Baltic countries: US\$5 million	Symantec: \$2.8 billion from security
2008	1,250 ^b	274 [°]	Russia: US\$49.1 million ^c Consumer products: 55 per cent, businesses: 33 per cent ^d	Symantec: \$ 2.31 billion and McAfee: US\$1.13 billion ^e
2009	1787 (631 in R&D)°	391 ¹	Europe: US\$188 million, Eastern Europe Middle East Africa (EEMEA): US\$97 million, Americas: US\$80 million, Asia and Pacific (APAC): US\$26 million Consumer: US\$255 million, corporate: US\$109 million, technology alliances: US\$27 million	Symantec: \$ 2.39 billion and McAfee: US\$1.19 billion ^e
2010	2,338 (1500 in Russia) ^c 818 in R&D ^g	538°	Europe: \$218 million, Americas region: \$134 million, Asia-Pacific region and Japan: \$55 million, CIS, Eastern Europe, the Middle East and Africa: \$131 million	Symantec: \$3.1 billion McAfee: \$1.85 billion

Table I. KL's workforce and revenue growths

Sources: ^aSwartz (2008), Weisenthal (2008); ^bLuxoft (2009); ^ckaspersky.com (2011); ^dItp.net (2008); ^eKolodgy (2010); ^fQuintura (2010); ^gArnold (2011)

KL had various incentives to attract and retain qualified employees. In 2000, the firm's turnover rate was less than 3 per cent (Baumgartner, 2001). A survey conducted by The Boston Business Journal in 2010 also named KL as one of the best places to work in Massachusetts (marketwire.com, 2010). Roger Wilson, KL Vice-President, Marketing noted that the company provided stock options to employees and helped them find housing as well as deal with Russia's bureaucracy to obtain residency permits (Baumgartner, 2001). This was in stark contrast to most Russian companies, which paid poorly to their employees and payments were unrelated to productivity. Moreover, compensations in most Russian firms rarely included bonuses and stock options in the country (Ivanenko, 2005).

The Russian business environment

Speaking of the barriers in the development of productive entrepreneurship in Russia, Eugene Kaspersky recently put the issue this way: "Russia has a lot of talented software engineers but not a lot of successful businesses. People still have an iron curtain in their minds" (Kramer, 2010b). When KL was launched, there was no government incentive program in Russia (Bentley, 2009). The lack of proper incentives had also led to a brain drain. According to AmBar, the Russian business association, 30,000-60,000 Russian-speaking professionals worked in the San Francisco Bay Area (Kramer, 2010a).

When a KL office was opened in Tianjin in 2003, the company benefited from Chinese Government's incentives for start-ups in special economic zone, which included a free office space for a year and a tax holiday (Kramer, 2010b). Pointing out the impacts of well-developed infrastructure, tax incentives and other support networks on the development of the Chinese IT industry, Natalya Kaspersky noted that a similar technology park would stimulate entrepreneurship in Russia (Morris, 2010).

Time	Event
1994	The AVP by Eugene Kaspersky was recognized as the best anti-virus scanner in
4007	the world by Hamburg University test lab
1997	KL was founded
2003 2005	KL entered China Independent US entity, Kaspersky Lab Inc was established
May 2008	KL had 12 offices worldwide and a partner network of over 500 companies in 100 countries ^a
October 2008	KL opened an office in Hong Kong
October 2008	KL opened a Melbourne office (for Oceania) and a Southeast Asia office in Selangor, Malaysia
Early 2009	KL opened an office in Dubai Internet City ^b
September 2009	Kaspersky received the National Friendship Award of China
2009	Kaspersky received the Russian state prize from President Medvedev for improving state security
2010	KL opened its first Indian office in Hyderabad
February 2010	KL was named one of the Top 10 Power Brands by PC.com, and voted "best anti-virus software" by the magazine's readers
April 2010	KL had a direct presence in 29 countries ^c
April 2010	KL won the Security Brand of the Year award at the Channel Awards ^d
June 2010	Boston Business Journal's survey found KL as one of the Best Places to Work in Massachusetts ^e
June 2010	Kaspersky won the Asia Entrepreneur Alliance International Distinguished Entrepreneur as CEO of growth and expansion ⁶
November 2010	KL was honored with the Strategic Brand Leadership Award in India
February 2011	KL was ranked No. 32 in Fast Company's 2011 list of the World's 50 Most Innovative Companies ⁹
May 2011	90 patent applications related to IT security technologies filed by KL were being processed by in the U.S., Russia, China and Europe ^h

Table II. KL's major milestones

Sources: ^aIsmail (2008); ^bMenon (2010); ^cBachman (2010); ^d1888pressrelease.com (2010); emarketwire.com (2010); ^fKumar (2010); ^gfastcompany.com (2011); ^hsecuritypark.co.uk. (2011)

Since KL relies heavily on intellectual property (IP) for its success, it faced a unique challenge in Russia due to weak IP protection laws and enforcement mechanisms. In most industrialized countries, duties and obligations to one's former employer, confidentiality clauses and non-compete agreements would prohibit a departing worker from taking valuable information with them. Natalya Kaspersky noted that such agreements were ineffective in Russia (Baumgartner, 2001). An employee in the Russian internet advertiser, System.ru, who reportedly took the firm's entire client database to a newly formed rival, was an eye opener for IT firms such as KL (Baumgartner, 2001).

Trends in the IT security industry

The growth of IT security industry is associated with and facilitated by a rapid rise in the cybercrime industry. Some estimates suggest that the global cybercrime industry generated US\$1 trillion in 2009 (Harris, 2009). According to IDC, the secure content and threat management sector was worth US\$15.1 billion in 2007, which is expected to increase to US\$21 billion in 2011 (Dearne, 2009).

Another important trend was global technology developers' business models based on open innovation and open source. Such models facilitated individuals and enterprises worldwide to develop applications. For instance, Google created an open environment for Android. Developers such as KL could sign up to the Android Marketplace and develop software. The rapidly transforming cybercrime landscape also provided opportunities for Kaspersky Lab and other developing world-based firms to use their technical expertise to expand market. The Romanian IT firm, BitDefender, for instance, was the first to develop a clean-up tool for the Sasser worm in May 2004 (Schenker, 2004).

KL, nonetheless, benefited greatly from the Soviet-era investments in science and engineering. KL considered Russia as an appropriate location to develop IT security products due to the country's skilled workforce and a prevalence of the culture of computer hacking (Peterson, 2005). Eugene Kaspersky noted:

There are technical universities in every major city and with one million students graduating every year, and there is a big labor market for software engineers [...]. Russian engineers are much more expensive than in China or India, who are good if you just want something programmed, but if it's about research, then it has to be Russia (Robinson, 1998).

Russia has created fertile ground for hackers. Experts say that Russian hackers possess capability to perform sophisticated operations with limited computer power and inexpensive software. About 82 per cent of respondents participating in a worldwide poll conducted on a hacker-oriented web site indicated that Russia had the world's best computer hackers. Only 5 per cent of the respondents believed that American hackers were the best (CNN.com, 2000). In the US National Security Agency – backed "hacking" competition of 2009, among the 4,200 participants, ten finalists were from Russia, compared to two from the USA[3]. Noting that the company had no plans to move its R&D in locations such as the Middle East, Eugene Kaspersky noted: "What we really need is the pool of talented engineers and I think Russian software engineers are the best, which is why our core R&D is in Moscow" (Menon, 2010).

KL's product-market strategy and performance

The company had a stronger competitive position in the consumer market compared to the business market. According to Gartner, KL was the world's third largest vendor of consumer IT security software and fifth largest vendor of enterprise endpoint protection based on 2010 revenues. In addition, dozens of original equipment manufacturers (OEMs) such as Microsoft, IBM and Cisco used Kaspersky Lab's anti-virus engine through licensing (fastcompany.com, 2011).

KL's top consumer products in 2010 were Kaspersky Internet Security and Kaspersky Anti-Virus (Quintura, 2010). In 2009, over 250 million consumers worldwide used KL's products and services (including technology alliances) (Singh, 2009) and the company added 50,000 new users every day (Luxoft, 2009). As of December 2010, KL's products were used by over 300 million people and about 200,000 organizations (Ranger, 2010). The company had a strong foothold in Russia. The company also occupied strong competitive positions in major emerging markets (Table III). In China, KL had 100 million users in 2010 (McMillan, 2010). The company's growth markets in Asia also include Thailand, Vietnam, the Philippines, Singapore and Indonesia (Singh, 2009).

Table III. Kaspersky Lab's performance and indicators related the size/growth of the anti-virus market in selected economies

Economy/region	KL market share/position	Indicators related to the demand of anti-virus products	Remarks
Russia	50 per cent (2001). 45-60 per cent consumer market, 30 per cent of the corporate market (2004) ^a 47.4 per cent (2008) ^b 59.9 per cent (2010)	Endpoint security market: grew by 10 per cent in 2010 to reach US\$137 million, grew by 10 per cent in 2009 ^b	Prominent clients: the presidential administration, the Central Bank ^o
The USA	2.7 per cent (2009), 3.5 per cent (2010) ^b	Endpoint security market: grew by 4 per cent in 2010 to reach US\$3,015 million	
Australia	2.1 per cent of market share in 2010 ^b	Endpoint security market: grew by 24 per cent in 2010 to reach US\$209 million ^b	
China	In top 3 in 2010 with 14.8 per cent market share ^b	Endpoint market declined by 39 per cent in 2010 ^b	
Malaysia	14.3 per cent (2009) ^b , 17.3 per cent (2010) ^b	2010: endpont market grew by 15 per cent ^b	
UAE	16.3 per cent by volume (2010)		
Middle East	10.6 per cent (2010)		Corporate customers: 87 per cent (2010) in terms of value endpoint revenues grew by 12 per cent (2010) ^b
Worldwide	5.5 per cent (2009), 7.2 per cent (2010)	No. of new malicious programs (e.g. viruses, worms and Trojans) >3 million (2007), about 20 million (2010). No. of botnets: 45,000 (2007) ^b	Symantec 34.1 per cent in (2009), 33.1 per cent (2010) and McAfee: 17.0 per cent in (2009), 17.2 per cent (2010)

Sources: aPeterson (2005); bIDC SCTM tracker 2010; cNefedov, 2001; dSullivan, 2007

While KL had an indirect presence through OEM in the US market for some time (Claburn, 2005), the company was a relative latecomer in the US market. KL made visible efforts to make up for the late start. In 2006, KL's Internet Suite and Anti-Virus titles began selling through CompUSA, Fry's Electronics and Office Depot (Olenick, 2006). KL also recruited retailers and distributors such as Best Buy and Staples. In North America (the USA and Canada), the number of retail stores selling KL products increased from 200 in 2006 to 15,000 in 2008 (Swartz, 2008). KL gave these retailers more attractive profit margins compared to its competitors. KL also provided marketing and technical supports. Jon Oltsik, senior analyst at Enterprise Strategy Group commented that KL's approach was based on a "tender, loving care model". The major target market consisted of consumers who were willing to pay extra for a high-quality security programs (Swartz, 2008). Stephen Orenberg, KL's Chief Sales Officer, noted that the company targets "savvier" users interested in results rather than a low price or loyalty to other brands (Olenick, 2006).

KL's approach to product development vision and processes

Describing his company's approach' to product development, Eugene Kaspersky noted: "[W]e knew that innovation and quality were the only feasible way to achieve international success"

(fastcompany.com, 2011). As noted above, the company's products were technologically superior (verified by third-party testing).

A software security firm's success hinges on its ability in identifying the threats as early as possible, responding to the threats and regionalizing its products to meet diverse customer needs. KL got a limelight in 2004 after it became the first company to identify a major shift in hackers' behaviors (Swartz, 2008). Among notable features of its products, KL provided more frequent updates than its rivals. In 2004, KL was the first company to provide scheduled hourly anti-virus updates (Internet Business News (IBN), 2004), while its rivals such as McAfee offered them daily. In 2005, KL offered about 600 security updates each month compared to 60 or less from its rivals (Claburn, 2005).

KL also stepped up efforts in regionalizing its products. Eugene Kaspersky noted that his company's high growth in the Middle East and other emerging economies were attributed to localized solutions (Menon, 2010). Speaking of KL's ability to launch products to meet the needs of the market, Natalya Kaspersky noted: "This is what Russian companies cannot do very well" (Peterson, 2005). Russian firms in general lacked marketing and management skills due to a short history of free market capitalism.

IT security markets in many emerging economies had been plagued by software piracy. In the past, software piracy was the only means for the emerging economies to stay abreast of rapid technological developments. The company noted that as people in emerging economies such as Russia enjoyed an increased purchasing power, piracy rates were likely to decline. In order to fight piracy, however, KL provides frequent product updates to compete with the pirated-software market.

Branding strategy

In 2000, KL undertook major branding and communication changes. It changed the name of its flagship anti-virus product from AVP to Kaspersky Anti-virus. In the same year, the company introduced the new trademark name Kaspersky for its whole product line and a new logo for its family of products. KL noted that these changes were carried out as the company changed its focus from a pure anti-virus software developer to a producer of a range of security software. In addition, the new name was meant to show a clear relationship between the products and the company name (Telecomworldwire, 2000).

It would also be important to view KL's success against the backdrop of Russia's reputation as one of the world's cyber-crime hotspots. There were reports that hacker rings believed to be working from Russia have engaged in various cyber-scams targeting businesses and consumers in the USA and other countries. Companies like KL are thus likely to suffer from a negative country of origin (COO) image. A reviewer of AVP noted: "The fact that AVP hails from Russia may concern some people" (pcnineoneone.com, 2000).

Considering access to foreign markets, we noted above that developing world-based companies such as KL were likely to suffer from negative COO effects. Arguably, studies offering consumers additional cues found that the COO effect lessened with the presence of additional

information (Bilkey andNes, 1982).Quality related cues such as frequent update and a reputation in finding holes in software products and solving them efficiently could increase a positive quality evaluation and create a positive brand image for an IT security company.

The company also established co-branding relationship with well-established brands. In 2006, AOL launched a new security program known as Active Virus Shield, which was powered by KL (LeClaire, 2006). In 2010, KL and Ferrari started cooperation including commercial sponsorship agreement with the Ferrari AF Corse team at the Le Mans racing series in France (KL, 2011). And in 2011 Kaspersky Lab became official sponsor of Scuderia Ferrari for 2011 and 2012 Formula 1 championships and signed license agreement that saw release of Kaspersky Internet Security Special Ferrari Edition. Moreover, KL has sponsored the Australian National Rugby League (NRL) team the Manly Sea Eagles and the Melbourne Demons Arena Football League (AFL). KL has also teamed up with Jackie Chan to "fight" computer viruses (See YouTube video at: www.youtube.com/watch?v¼iHEFmg1Cr0Q).

Entering the mobile security market

KL started providing security software for mobile devices starting with Kaspersky Anti-virus Mobile in 2005. It was the first anti-virus company to detect a malicious program classified as a Trojan-SMS for smartphones running on Google's Android operating system. Starting first quarter of 2011 KL offers new privacy, anti-malware and anti-theft features for Android and BlackBerry users in Kaspersky Mobile Security 9 suite. According to Nikolay Grebennikov, chief technology officer for Kaspersky Lab, the company identified about 70 different types of malware targeting Google's Android in April 2011 compared to 2 September 2010. According to market research firm Gartner, Google's Android would account for 38.5 per cent of smart phones sold in 2011.

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Figure 1. KL's portal web site

Online presence

KL also developed and implemented a successful e-commerce strategy. In 2004, traffic to the company's web site (www.kaspersky.ru) doubled. The Rambler Web counter8 ranked Kaspersky Lab's web site as one of the top 20 web sites based on growth (Peterson, 2005). KL's homepage was designed as an e-business portal for customers to buy software for home and business products (Figure 1). KL web sites also offered services such as free trials as well as virus scan and virus removal tools. The company also established partnerships to stimulate online marketing. In the UK, KL worked with Mezzo marketing, which acted as virtual online department for the company. Mezzo helped plan and manage online campaigns and worked with the company's affiliates (mezzomarketing.co.uk, 2011).

Looking forward

One of KL's goals was to become the world's third largest anti-virus software company by 2011 (Bachman, 2010). The company also had an IPO plan, which was postponed due to the 2008 global financial crisis. Regarding the motivations behind an IPO, Eugene Kaspersky commented:

The main reason is not to get money – we have enough – but to raise corporate profile and become more transparent that contribute a lot into company's positions on corporate market, especially in the US and the UK. Gaining market share in corporate segment is one of the key priorities of KL business development.

It is also important to note that KL's two largest competitors McAfee and Symantec are public companies. Symantec was founded in 1982 and went public in 1989 (NASDAQ: SYMC). McAfee was founded in 1987 and is a wholly owned subsidiary of Intel Corporation (NASDAQ: INTC). John Bernstein, GA managing director and KL board member expected that, KL would go for an IPO by 2016. Bernstein said: "We intend to help them with all the steps towards that [IPO]" (Arnold, 2011).

Case questions

- Perform a SWOT analysis for KL.
- What were some of the technological developments that made it possible for emerging economy-based companies such as KL to compete with industrialized world-based firms?
- How would you segment the potential market for anti-virus products? Evaluate KL's performances in each of the segments.
- Did KL's Russian origin lead to an adverse perceived impact on its brand image? What were some of the activities KL did to enhance its brand and overcome the negative COO? What other activities would you suggest to strengthen its brand globally?
- Would an IPO strengthen KL's market position vis-à-vis its rivals? How?

Notes

1. As a private company, Kaspersky Lab does not disclose the exact percentage of total shares distribution.

2. Packaged software is defined as ready-to-use software available in the retail market.

3. 20 of the finalists were from China.

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