
Lessons from the Internet Revolution: Where Emerging Markets Go from Here

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Opportunities for technology-based entrepreneurship in emerging markets have generated a storm of business literature in recent years, with a particular focus on successes among Internet-based companies in Asia and Latin America. Less attention, however, has been paid to the strategic and political importance of technological advances and the development of a real entrepreneurial environment in these markets. Now that the bloom is off the rose of the Internet rush, it is worthwhile to revisit the transit of technology start-ups in emerging markets over the past few years and to examine the reasons for their mixed fortunes.

The period from 1995 to 2000 was marked by euphoria across the board in the technology and Internet sectors. Particularly in the emerging markets of South and East Asia, Eastern Europe, Latin America, the Middle East, and Africa, there was a sense that the Internet would offer a means to close the gap with developed nations. In 1999 and 2000, there were more than 20 high-profile initial public offerings (IPOs) of European, Asian, and Latin American companies that were squarely in the Internet sector, and there were dozens more pre-public, venture-backed companies lining up at the gate. Since the peak of the Internet boom at the beginning of 2000, however, Internet related businesses in emerging markets have seen a rapid deflation of values. Take the following cases:

Heather Killen served as Senior Vice President, International Operations, of Yahoo! Inc. from November 1999 to June 2001. From 1996 Ms. Killen held several positions with profit and loss responsibility for the company's international businesses, including Vice President, International, and Managing Director, European Operations. She established Yahoo!'s operations in the UK, France and Germany, and subsequently led the development of the company's business elsewhere in Europe, as well as in Asia Pacific and Latin America.

- Starmedia, a Latin American consumer portal, went public in the middle of 1999, having been a successful start-up with venture backing from Flatiron Partners and Chase Capital in New York. After hitting a high of almost \$4.5 billion in market capitalization, Starmedia is trading today at a market capitalization of about \$11 million, with \$59 million in cash and zero long-term debt on its balance sheet.
- Sina, designed as an Internet media and services company for worldwide Chinese communities, has seen a similar fate. Coming to the public markets in early 2000, it had an extremely successful IPO, which capitalized the company for a time at more than \$2 billion. Again, with no long-term debt and cash reserves of \$130 million, the company now has a negative enterprise value based on its current market capitalization of \$45 million.
- In a somewhat less spectacular flameout, the Indian start-up Rediff listed in June 2000 and promptly hit a high that valued the company at over \$700 million. The stock recently hit a new low of \$0.71, capitalizing the company at about \$18 million. This plunge occurred despite announcing a five-fold increase in revenues from the same quarter a year ago.

Taking these examples as a scorecard of technology entrepreneurship is depressing. The picture is one of investor disenchantment, consolidation and a struggle for survival. Clearly, we need to look beyond the stock market phenomena to see how information technology has changed the landscape for the formation of new businesses in various regions of the world. In truth, share prices alone tell us little about the depth and importance of developments in information technology and international entrepreneurship in the past decade. In the last ten years, it is clear that while technology firms may now be suffering from short-term instability, the long term presents huge opportunities, particularly for countries that are willing to establish the right kind of business environment.

A number of important changes happened in the past decade that enabled companies to get started in the Internet sector in markets that previously might have missed out on these developments altogether. First, modern communication technology contributed to a much faster flow of business information, and the successes that many companies experienced in the 1996 to 1998 period in the U.S. were quickly picked up and copied in other parts of the world.

Second, the funding environment has changed dramatically over the past ten years, with more money flowing into emerging markets. From 1990 to 1999, total foreign direct investment (FDI) in low- and middle-income economies, including East Asia and the Pacific, Europe and Central Asia, Latin America and the Caribbean, the Middle East and Africa, and South Asia, increased from \$24.2 billion to \$185.4 billion, according to the World Bank.

What is unclear is whether all the other conditions were ripe for these markets

to absorb the capital that was flowing to them. Other conditions that are important for fostering a healthy entrepreneurial environment include the free circulation of ideas, the protection of intellectual property, a tolerance for open platforms, regulation transparency, the ability to securely close transactions among individuals and firms, and a solid physical and communications infrastructure.

Consider Jordan as an example. Foreign direct investment to Jordan has risen by 550 percent since 1999, largely as a result of an acceleration of privatization initiatives. More than 25 percent of the \$2.4 billion in U.S. funding ever to reach Jordan has been placed in the past four years, with technology projects replacing basic infrastructure as the main target. The kingdom's Reach 2.0 initiative revolves around the transformation of Jordan's software and information technology industry, and it is following Egypt in creating a ministry of communications and information to replace the old PTT (Post, Telegraph, and Telephone authority). So far, so good.

However, a lot of other factors must change to make Jordan a more favorable environment for new businesses. The country has the highest number of Oracle developers per capita in the world, but many of these individuals are being lured away to higher paying jobs in the Gulf States. Intellectual property laws currently make it impossible for companies to apply assignment of invention contracts to technology workers. Stock exchange regulations also prevent companies without at least two years of profitability from being listed. Many of these conditions need to change in order to create an environment in which people are able to start new businesses and attract investors to them.

Let's turn to briefly examine what constitutes successful entrepreneurship at its most basic level. I suggest that entrepreneurship entails bringing together the following elements:

- A change in technology,
- A market need,
- A business model adapted to the market, and
- Good execution.

Successful entrepreneurship does not necessarily involve breakthrough discoveries, innovative products, or even new business models. Successful "knock-offs" bear all the marks of entrepreneurship too.

A personal example that illustrates this is my friends and erstwhile colleagues at Yahoo! Inc. It is fair to state that Jerry Yang and David Filo turned out

The Internet is emblematic of our contemporary world structure. Economies that are not part of this "network," and that lack information and communications infrastructure to play, are the ones most likely to manifest disaffection with our modern, pluralistic way of life.

to be successful entrepreneurs, but they did not really come up with anything new. Many of the conditions that allowed Yahoo! to be successful already existed: usage was increasing on the Internet, a number of graphics-based browsers were available, and the amount of content was proliferating. The technology to create a database and make it searchable already existed.

In fact, the consciously self-deprecating name of the company, Yet Another Hierarchical Official Oracle, demonstrates clearly that Yahoo! was not a breakthrough discovery in search engines, or portals, or anything else. Rather, it capitalized on existing conditions, a clear market need, and good execution.

There are numerous other examples in markets outside the U.S., and you do not need to look at the recent Internet land-grab to find them. Wipro, one of the largest technology companies in India, was founded in 1945 as a consumer

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products company. It began offering software services in 1990, now generates revenues of almost \$700 million and has offices in 20 countries. Under the leadership of Azim Premji, Wipro combined an idea for a business that was already taking shape, namely outsourcing of software development, added the advent of file transfer protocol (FTP) as a communications platform, and combined it with the key factor of a splendid labor arbitrage between the expensive

markets in the U.S. and Europe and the cheap and highly skilled talent available in India. Wipro is now not only a major software development resource for companies around the world, but is also actively investing in new ventures itself. There are several other great examples of this kind of smart, tin-tacks entrepreneurial activity in India.

I would also like to bring up the example of Japan's NTT DoCoMo. Although not a start-up in the usual sense of the word, DoCoMo is one of the great examples of technology entrepreneurship in Asia in the past ten years. Again, i-mode, a platform developed and marketed by DoCoMo, did not really do anything particularly revolutionary. There were already several platforms available for the transmission of data via mobile devices. And it is quite fair to say that i-mode's business platform, namely an open standard to which many developers can write and which is centrally administered by DoCoMo, was first pioneered by the Minitel in France some 20 years ago.

However, what i-mode did right was to combine the platform, the transmission of data via mobile handsets, and the voracious appetite of young and not-so-young Japanese users for a wide range of services.

Let us now turn to some more recent examples of businesses started in

non-U.S. markets during the heady past few years and see how they have fared. I would like to first focus on my experiences in taking Yahoo! outside the U.S. market and establishing operations in more than 20 countries. I think this bears a quick review, because I was probably one of the more prolific “knock-off” entrepreneurs on the Internet over the past few years.

We did a lot of things right in the international expansion of Yahoo!, but I also think we made some mistakes. One of the biggest mistakes was failing to sufficiently adapt the company’s product offerings to local market needs. We found that our calendar products needed to be adapted for greater China to include a lunar calendar. In Sweden, meanwhile, we had to include an overlay that numbers all the weeks of the year, a common way of setting dates in Scandinavia. Although we got around to doing many of these things in time, it was an education in itself to see successful, local “knock-offs” doing many of these things better.

Another example of this was the launch of our standard chat product in Korea. There had been a reasonably large online community in Korea before the Internet started to take off. People were using proprietary online services, à la the CompuServe or AOL model. Users were accustomed to a particular style of interface for online chat, which was picked up and elaborated upon when Korean companies started building web-based chat products. The Yahoo! chat platform did not match that experience and, consequently, chat has never been huge for Yahoo! in Korea.

Of course, the factor that made Yahoo!’s business model work in many of these markets, even the ones without well-developed online advertising markets, was our ability to leverage a platform that was already developed, and to effectively execute the deployment of the network on a shoe-string. That was not the case for many of the companies that tried to emulate us, or that copied Amazon and Ebay, for that matter.

One successful adaptation of the community business model was Korea’s Iloveschool. In Korea, alumni organizations are a very important way for people to stay in touch with friends and create business networks throughout their lives. Iloveschool took the popular clubs metaphor, first developed in the U.S., and adapted it to the Korean model. The only problem was that, like community sites everywhere, there was no viable business model for this company, and low barriers to entry. Iloveschool still exists, but it has been eclipsed by other Korean alumni sites that are also struggling to achieve profitability.

One of the great mysteries to me has been the capital invested in, and the excitement around, Internet portals in China. The three portals with the greatest

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reach in China—Sina, Sohu, and Netease—all have slightly different histories, but seemed at one point to represent a great success in Chinese entrepreneurship. However, all these companies were and are dependent on online advertising. All of the “successful,” and some of the even more improbable Internet companies in China, have been scrapping over a market that will barely attain \$80 million in revenues this year. This should not be any surprise because despite its huge size, China has a tiny advertising market, even including television.

A more curious example is the number of portals vying for a share of the Arabic-speaking market. Arabia.com in fact just pulled down \$20 million in funding, which is more than twice what the entire Arab market is going to spend this year for online advertising.

Even good product localization does not guarantee success if the business model is not appropriate to the market. In fact, it is interesting to note that Sina has been returning to its Chinese roots of late and beefing up its software business, and just announced that it has bought 29 percent of a regional satellite television

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broadcaster and cable program syndicator. Meanwhile, Rediff recently bought a magazine publishing company focused on Indians abroad, and in the process has completely revamped its business model.

Similar missteps have been made in many e-commerce efforts. Consider some examples in Latin America where, despite a great deal of hype, most Internet business-to-consumer ventures have struggled. Submarino, an online bookstore that started in Brazil, has shuttered its operation in Argentina, and auto sales sites like Webmotors in Brazil and CarOne in

Argentina are stalled. One of the more successful e-commerce sites in the region, DeRemate, an Ebay knock-off, just took down a new \$14 million round, mainly from existing investors. This will bring the cash invested in the business since its August 2000 launch to almost \$60 million; a substantial sum for a company that does not expect to break even until the middle of 2002.

It is quite obvious that an e-commerce model that relies on credit or debit cards faces a limited audience in markets where card penetration is low and card fraud is high. This makes merchants reluctant to get into the online commerce game, and consequently the critical mass of users has not built up. Moreover, over 40 percent of Latin American users in a recent survey by an Argentine research firm said that security was their primary concern in shopping online.

Combine this with poor overall logistics and a 15-fold expenditure on sales

and marketing compared with online sales automation technology by online retailers, and the reasons for the disappointment to date are clear. To the extent that Latin American users have tended to come online and shop so far, they have overwhelmingly favored buying from U.S.-based sites.

Most of the disappointments we see over the past few years seem to me to have revolved around misjudgments, primarily of market needs and the applicability of the business model to the market. Although the Internet is clearly a phenomenon of globalization that does not suggest that all the Internet applications in the world need to be the same.

Let us draw a distinction between the globalization of consumption—the Levi's and McDonald's phenomenon—and the globalization of production, in which information and information technology can create efficiencies and productivity gains that contribute to rapid economic growth. In other words, perhaps some of these emerging markets could actually do without yet another consumer portal. This does not mean, however, that the Internet is not important to their development.

Looking forward, there are many reasons to predict opportunities in information technology in emerging markets. First, despite current economic conditions, a recent survey of chief information officers by International Data Corporation (IDC) revealed that businesses around the world are increasing their spending on e-business by 20 to 30 percent in 2002, and hoping to increase online revenues by 50 percent.

Second, the number of Internet users will more than double from 400 million in 2000 to almost a billion in 2005, and the number of employees using intranets will triple from 118 million in 2000 to almost 400 million in 2005. Meanwhile, the number of businesses with web sites will more than double, from 10 million to 25 million, including a rapid increase among small businesses that already have Internet access.

Finally, much of this growth will happen in markets where online penetration is still below 30 percent: Asia, Eastern Europe, Latin America, the Middle East and Africa. E-Marketer forecasts that North American users will represent only 25 percent of total online users in 2004, compared with 55 percent in 2000.

Turning to some areas that I believe are of promise in emerging markets, the explosion that is taking place in mobile access to the Internet appears set to

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occur mainly outside the United States. IDC projects that by 2005, one billion people worldwide will have Internet access devices, and mobile web users will increase from 13 to 60 percent.

With the rapid increase in mobile users, the deployment of mobile enterprise applications will be a particularly hot area. Given the relative cost advantages of mobile communications in emerging markets, this application set could result in significant gains in productivity for companies that can wirelessly enable a mobile workforce with immediate access to enterprise applications.

Furthermore, a vast amount of work remains to be done to integrate companies' existing systems with Internet applications that can connect them to suppliers, customers, contractors, and other participants in the value chain. Companies need to deepen the links that exist between their web sites and order processing, purchasing, customer relationship management, and administrative systems.

Emerging standards such as XML (extensible markup language) are slowly bringing consistency to this area. However, much of the work that remains to be done is market, industry, and company-specific. Consequently, significant opportunities exist for emerging markets companies that can provide these solutions on a localized basis.

The XSP (various types of service providers) market is also poised for rapid growth in emerging markets, particularly in Asia. As more small- and medium-sized firms come online they will demand services in the applications, systems integration, storage, management, and network areas. IDC believes that the XSP market in Asia will grow at a compound annual growth rate of 36 percent through 2005.

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legal and financial environments for new companies to form and get funded. Generating real value and economic benefit depends on the ability of new companies to rely on the integrity of legal and financial institutions, and to create and defend intellectual property.

On the bright side, many emerging markets are gifted with a generation of still very young entrepreneurs who have skinned their knees and earned their chops over the past five years. The most exciting thing will be to see what they will turn their hands to now. ■