

## FT REPORT - FUND MANAGEMENT: Technological arms race benefits the innovative

Print

By Mike Scott

Published: Feb 18, 2008

Many of the challenges and opportunities that face the technology software sector are related to the huge variety of applications it can be used for and the speed at which the industry moves. There is a constant technological arms race, according to Chris Potts of Rhyme Systems, an asset management software company.

January's market meltdown left many financial software systems outclassed by the volumes they had to deal with, he says. "It is not just a question of capacity - you can have lots of bandwidth but choke points appear because software is updated so often. It is often not until you get a very high volume situation that problems emerge."

At a more conceptual level, Till Guldemann, vice-chairman of SunGard, says the speed of light is now a limiting factor for trading on exchanges because it limits the speed at which information can travel. "It takes 15 milliseconds for information to travel from New York to London - this is too slow for international trading. This means the whole concept of a few global exchanges where everything is done is no longer valid. A lot of hedge funds are now putting all their computing power into rented buildings next to exchanges."

The biggest change for the industry in recent years has been the rise of the internet, which has changed the business model for the industry, giving rise to the concept of Software as a Service (SAAS). Software functions are increasingly being outsourced and offshored, says Paul Miller, partner in applications and technology at IT consultancy Morse. This leads to a change of culture, he says. "It is no longer about fast-moving innovation - it is about being a service provider."

It is estimated that Google can carry out computing tasks on behalf of businesses for one 10th of what it would cost the business. An example of a company that has profited from applying this model is Thinkfolio, which provides front office asset management tools, giving a cheaper alternative to traditional tools such as Charles River's Investment Management System.

This business model also changes the way companies make money, says Steve Edkins of private equity firm Fusion. While a traditional software contract would involve an upfront licence, installation and maintenance, SAAS customers pay for what they use in an arrangement more akin to rental-type arrangements. "Revenues drop in the short term but it leads to bigger revenues in the longer run," says Mr Edkins.

The internet has provided other openings. Quadrem, a US company, helps companies manage their global procurement systems and supply chains with a platform that operates like a business-to-business version of Ebay. Since it was founded in 2000, the company has grown by about 20 per cent a year.

Energy is becoming a massive issue for the industry because of the advent of the data centres and "server farms" that provide the capacity to allow software to be used to its full potential and drive the growth of internet applications. "The creation, storage and movement of 10MB of data uses about 1kg of coal," says Sandhya Tenneti, technology analyst at Innovest Strategic Investors, adding that server farms use enough electricity to power more than 1.3m homes in the US.

This has led to a range of innovations and opportunities, including DC-only servers and new types of liquid cooling, which provides opportunities for companies such as Rittal, APC and Liebert.

It has also led companies to search far and wide for ways to deal with the huge amount of heat that data centres generate, says Ms Tenneti. These range from Microsoft and Yahoo looking at setting up a data centre in Iceland to take advantage of the availability of the geothermal energy to companies looking at building facilities in Siberia where they would have to spend less

energy cooling the servers because of its naturally frigid climate.

The energy consumption of data centres also raises issues for companies that outsource facilities to places such as Bangalore where power supply is intermittent because demand outstrips supply.

"If you have a data centre in India, you need back-up generation - normally diesel-powered - which is just heaping inefficiency on inefficiency," says Ms Tenneti.

The amount of information software companies gather is throwing up challenges, with companies such as Google and Yahoo under scrutiny for the way they deal with access to information in places such as China, says Stephanie Maier of Eiris, the ethical investment research service.

Other issues that search engines and internet service providers have to deal with revolve around content, with increasing attention on the dangers of children gaining access to unsuitable content. However, it also provides opportunities for companies such as Symantec and McAfee, which provide computer and internet security products.

Emerging markets are another big challenge, the SunGard vice-chairman says. "The biggest opportunity is in capturing market share in emerging markets. Do you translate your biggest products into Chinese and sell them into that market? We think the best way forward is to buy the best local talent and build on that experience rather than import 100 expatriates," he adds. As a result, SunGard has bought Kingstar, a Shanghai-based software solutions company.

The industry's speed of innovation raises a number of reputational and stakeholder issues, says Innovest's Ms Tenneti. Microsoft's attempts to produce mind-reading software that reads brain signals, for example, has already led to fears that continued use could lead to attention deficit hyperactivity disorder.

TietoEnator, on the other hand, is benefiting from positive publicity for its product that uses mobile phone technology to ensure timely medical care for stroke victims.

Ultimately, the nature of the sector means that new opportunities will arise constantly. "Because the sector is so fast-moving, you continually have new gaps in the market and often it is new companies that are best placed to fill them," says Mr Miller.

mike.a.scott@ft.com

Copyright The Financial Times Limited 2008

"FT" and "Financial Times" are trademarks of the Financial Times. [Privacy policy](#) | [Terms](#)  
© Copyright The Financial Times Ltd 2008.