

## **Keynote Speech, Lloyd's of London, 11<sup>th</sup> July 2001 - DK Matai, mi2g**

### **Information as Currency – The future of financial services**

The subject of today's talk is the contribution of Information Technology in evolving financial services beyond today's banking, insurance, coins and paper currency world. It is fitting to talk about this at Lloyd's of London, a consistent inventor of new kinds of risk management solutions since 1688.

The evolution of civilisation is based around finding better and more efficient ways of doing things. We judge the degree of advancement of a civilisation on the basis of its mechanisms for conducting daily transactions both within society and with its global neighbours.

The way we work has always been changed radically by inventions and advancements in technology. For example, the arrival of canals, followed by railways and finally aeroplanes has fundamentally altered the way in which people interact with each other around the globe.

There is a certain top decile of American, British or Asian working society that is continuously moving from city to city. For example, one of my best friends works during the week in New York and flies back to London for the weekends to be with his family. During the week, he may be in Mexico City or Tokyo. This suggests a very mobile culture in the 21<sup>st</sup> century.

Today, I would like to talk about some of the financial inventions and business innovations which will drastically change the way in which people conduct their lives in the coming ten to twenty years. These new ways of doing things will significantly save time, money or both and in the process they will impact on the economy and the way that it looks and feels.

Some of the changes that are coming in the pipeline are not evolutionary. They are revolutionary. The revolution has only just begun. So buckle up, tighten your seat belts and enjoy the ride.

Before I go any further, I would like to narrate the story of the invention of chess. In about 600 AD in India there was a mathematician by the name of Seta in the kingdom of Sheram.

He invented a 64 square board with alternate black and white squares. Then he placed a pair of battlefield armies from soldiers up to the king, the chief of command. He then demonstrated that a battle could be fought in various permutations of attack and defence. He called this game Chaturang and presented it as a royal game to the king and his courtiers.

King Sheraam got impressed with the excitement involved in playing the game and wanted to reward the inventor, Seta.

He called Seta and asked, “What do you desire?”

Seta, with folded hands asked for grains of wheat to be placed on the squares of the game board in such a way that he would have one grain for the 1<sup>st</sup> square, 2 for the 2<sup>nd</sup>, 4 for the 3<sup>rd</sup>, 8 for the 4<sup>th</sup> and so on.

The king and his ministers granted Seta’s wish.

However, when the store workers reached almost half way they found that the entire kingdom’s stock would not be enough.

Mathematicians were called in. King Sheraam was told, “There is not enough grain in your entire kingdom. In fact, you would not find enough grain in the whole world. If you still wish to pay Seta, then order all kingdoms on earth to be turned into arable fields. Order all seas and oceans to be dried up. Order all ice and snowy wastes in the northern lands to be melted. Then perhaps, there would be enough grain to fulfil Seta’s wish.”

The king said, so what is the number? 18.4 Billion Billion grains. At which point, the king ordered that Seta be beheaded.

In today’s age the computational revolution brought about by information technology is like the game of chess. It offers us the ability to solve our business problems in multiple ways like disease management by breaking the gene code, predicting natural calamities and understanding the evolution of galaxies and beyond.

Without going into too much detail, I would like to concentrate on our main topic of conducting financial business in a revolutionary way using information as the main lever.

**Chess and computing are connected in other ways.** In computing also, the processing power for a given cost doubles every 18 months. Moore’s law has been in action since 1950s and is likely to remain in force at least for a few more years when the Quantum effect will begin to plague the current semiconductor technology.

**Moore’s law is applicable to Communications** as well. Every 18 months or so, the bandwidth for a given cost doubles, i.e., one can send down twice as much voice or data for the same price.

As computing, fixed and wireless communications follow a square law they are **impacting on the structure of our economy**, whereby the new currency is not the grain of wheat but the information to know what are the consequences of doubling the processing power and communications capacity thereby significantly reducing the time taken to finish a set of tasks.

**Location is increasingly irrelevant** as geography is made history by anytime, anywhere access to information.

What we are seeing is the cost to the customer of basic technologies that enable information access or transaction is falling. In consequence, the choice of vendors offering goods cost effectively is increasing.

Did everybody know of a company called Vodafone ten years ago?

Did anybody suspect that it would become one of the world's largest companies and overtake British Telecom and AT&T?

## **Vienna**

Yesterday I was at the 37<sup>th</sup> International Insurance Society seminar in Vienna. Where I had the good fortune of meeting the CEOs of major global insurance groups like James Ericson, the Chairman and CEO of Northwestern Mutual Insurance Company of USA, Dr Claus-Michael Dill, the Chairman of AXA Colonia in Germany, Prem Watsa, the Chairman and CEO of Fairfax Financial Holdings in North America, Lars-Eric Petersson, President and CEO of Skandia.

The point they all agree on is that here and now, in mid-year 2001, there is an even clearer view of the need, for insurance companies to use technology as a tool to cut cost.

Dr Dill of AXA said that the way AXA is cutting cost and improving claims and policy issuance efficiencies is through internet based CRM – Customer Relationship Management, which merges call centers, internet selling and mobile telephone messaging. Lars Petersson of Skandia pointed out that they are looking to save 15% per annum through eBusiness technology deployment. James Ericson of Northwestern Mutual said that local business culture is becoming more global and the winners in this competitive environment will be those companies that embrace new technology ideas and apply them to streamline their business processes.

## **Knowing Time and Space**

If you go back to the 18<sup>th</sup> century or before, not everybody knew what the time was in a village. They relied on church bells whilst today we all wear a wrist watch and plan our lives around this information.

In today's world we are no longer living in a given city or village. We are increasingly in new locations and cities all the time. What we need to know is not just the time but precisely where we are, what services are available locally and would ideally like access to our basic operating information at home or in the office 24 hours a day regardless of location. Hand held devices will enable some of this wish list within the coming few years for most people.

## eDFi

Let us take an example. Imagine we are in a new town like Beijing or Budapest and have a need to access a file sitting on our home or office computer. If there was a service that allowed instant access to that file from anywhere in the world via a hand held device in a secure way, think about how much more efficiency would this give you by way of planning your working life? This will appeal to most of you around the table as you live a global life style out of your suitcase.

Similarly a handheld device is excellent to know:

1. The account balance and pay the bills
2. The latest share price of a stock (BT)
3. When does my flight leave?
4. What are my urgent emails?

You will be interested to note that such an information intelligence platform is being developed by mi2g and it is called the electronic data financial institution. eDFi is simultaneously a bank and an information deposit taker allowing a customer access to his information and money regardless of where he may be in the world.

## The Bubble

Some people may be sceptical about the promises of information technology because of the failure of some dotcom companies.

Bubbles are not new. The last time that we saw a major bubble was when railway stocks were overvalued. In the short period from 1844 to 1846 the railway stocks appreciated in an exaggerated way; however by 1851 some of them had depreciated by over 90% against their peak.

This is no different from looking at NASDAQ between 1998 and 2001. Admittedly the cycle has shortened from about seven years to about three.

Does this mean that:

1. We don't use railways today around the globe?
2. Businesses that were set up around the world to benefit from railways did not wipe out their competitors?

What the railways show us is that:

1. New technology triggers a race amongst early enthusiasts and adaptors to gain competitive advantage – such as the start of dot coms in 1997.

2. This race reaches a crescendo as inflated expectations fail to recognise that people don't behave like objects on a doubling chessboard. They take longer to adopt to new technology. We saw the cusp of this activity at the end of 1999.
3. The technology investors get disillusioned, shares fall as gravity kicks in. This happened in 2000.
4. Then some of the businesses that have invested in technology get disillusioned. This is happening in 2001.
5. Then gradually, "True" eBusiness emerges which makes it possible to dramatically cut costs through the use of new media. Established businesses are the main beneficiaries of True eBusiness. They are able to increase their margins as a result of eBusiness.
6. There is a period of enlightenment during which some real success stories begin to turn the table on businesses that are oblivious to eBusiness rules. Businesses are optimised to become electronically enabled all through their supply chain, research, development, marketing, sales and distribution channels.
7. By 2005, eBusiness is gone and whatever Business goes on in the world is eEnabled like the DNA in our body's cells. These businesses have a significantly better margin than their predecessors and are able to share some of their margin with their customers to retain competitive advantage and build market share.

### **The new eBusiness context**

The fundamental problem with the internet is how to engender trust. If there is a trader in the Midlands wishing to buy goods from a supplier in Taiwan he saw on the web, how is going to be able to trust the business. Traditionally this has been done using Letters of Credit. If there were to be a global third party like a bank or insurance group on the web giving assurances on Confidentiality, Integrity, Authentication and Non-Repudiation for each transaction, that would facilitate volume financial transactions between unknowns. Such an assurance could be given via a digital passport issued by a bank or a telecom group engaged in financial services and be funded on the basis of a transaction commission or minimum fixed charge.

So who is going to thrive in the new eBusiness financial world:

1. Multi-dimensional Customer profiling and care denominated financial services such as knowing what goods and services the customer buys and how he splits his deposits into different financial instruments. Think Grocery Chain Bank and Mobile Telco Operator financial services. TESCO bank has access to two streams of data – grocery and banking. A Mobile Telco Bank will have access to voice call data, small payments data and bank deposits as well as share portfolio data.
2. Creative solutions to old problems. Customer has to carry loose change. Marry vending of loose change goods to the micro bill of the mobile telephone.

3. Co-operation – Don't just offer banking services but also rentals to software that the customer hates to buy and then buy again when a new version comes out.
4. Commitment – Not only can you have access to your money anywhere in the world but access to your information securely?
5. Charging – Think of charging small amounts to save the customer time. In the 21<sup>st</sup> century, busy customers – high net worth customer - will pay for time saving services that fetch them the best interest.
6. Competition – Survival of the fittest. Electronic vehicles will dominate in competitive marketplaces.
7. Culture – In each country business follows the local culture. eBusiness is no different.
8. Cost is the deciding factor when determining eBusiness investment and calculating Return on Investment potential. eBusinesses do carry a hug cost saving advantage. In financial services, the issuance of paper work, processing of requests and handling claims all take a lot less time when it is an eEnabled self service.

## **Conclusion**

In conclusion, I would summarise by saying that there are risks - some mistakes will be made - but established financial services groups realise that 'sitting on their hands' will not deliver faster, leaner business with global reach and rich product options. The race is going to be won by the business leaders who identify the correct technology leaders to shape their future.