

Which banker is really happy with his information system?

Over the past few years, it has become more and more difficult to find a banker who is really happy with his information system. For the most part, most bank directors or chief operations officers complain about having an expensive and rigid Information System. Faced with fast moving business requirements and an ever-increasing flow of new legislation, most Information Systems find it difficult to keep up. In the post 9/11 slump, banks struggled to cut their costs. They began to discover that an incompressible part of the budget was spent to simply keep their information system up-to-date. Designed in the 80's, most of their systems had been disorganised in the 90's to be able to integrate unforeseen functions such as electronic trading or Internet banking.

David Royston

Royston Consulting

david.royston@royston-consulting.com

Ironically, until quite recently, not many banks have taken any major action to change Information Systems and to move to a more versatile and modern IS architecture. Nevertheless, there seems to be evidence that the situation is changing: now several financial institutions are undertaking major projects to migrate the very heart of the information system onto newer and more flexible systems.

Why are these projects being undertaken now? What strategies should be used and what approaches are necessary when choosing a new system? What are the major obstacles and how must banks learn to evolve to manage such projects correctly?

A short study of several cases has revealed that there is a definite pattern and a set of approaches that are each adapted to different situations.

The reasons for changing an information system

Cost

Maintaining an in-house system or an outdated package is far more expensive than running a modern package. However, given the risks involved in migrating an Information System, running costs alone may be sufficient to make such a major decision.

Time to market

In many cases, in-house systems are badly documented, the level of documentation dates back to a time when such issues were dealt with lightly. Knowledge and skills required to maintain and update such systems are beginning to be sparse.

In addition, there is a vicious cycle: given that updating old systems take too long, there is no time left to work on the documentation. Therefore, they become more and more difficult to update, each move makes the next one more difficult. After a while even small enhancements can take a considerable time to implement and changing the system can sometimes have some highly undesirable side-effects.

Complexity

The second law of thermodynamics states that the entropy of the closed system can only increase. In non-scientific terms, this means that disorder will always increase.

In the case of Information Systems, a good initial design should allow evolutions and new functions to be integrated in a clean and efficient way. The trouble is that, under market pressure, in the 90's, major extensions or extra parts were hastily added onto information systems. As a result, their capacity to continue to evolve in a clean and transparent manner has been considerably reduced. In addition, fashions and changes in information technology have also done some damage. It's not uncommon to find a mixture of programming techniques or languages within the same system.

Considering that all of these reasons have existed for the last 10 years, why are banks now beginning to migrate?

Now is the time

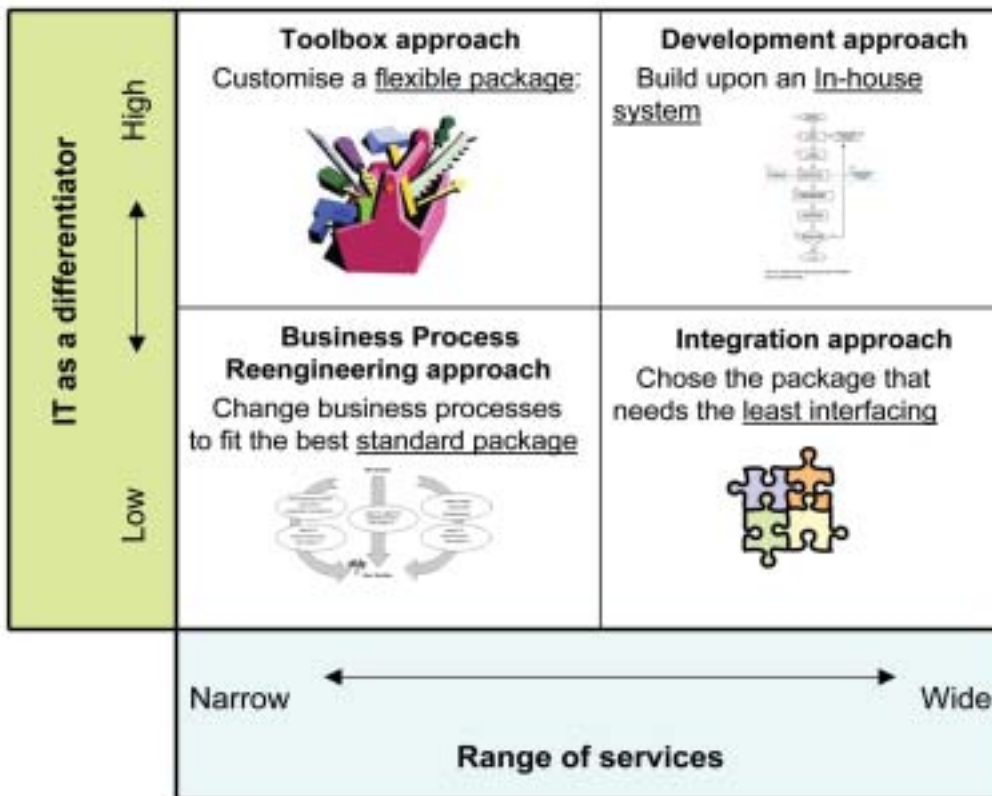
Over the past year, there have been an increasing number of major projects undertaken to replace in-house systems or switch towards more standard IS platforms. This activity contrasts greatly with the previous situation when many were complaining and almost nobody was moving. There is a set of reasons why the situation has changed.

During the late 90's, the Euro and year 2000 compliance projects had a double effect. On the one hand they prevented many banks

Lessons learnt:

1. Define the approach before looking for a solution.
 - Is Information Technology a differentiator for you?
 - How many other systems do you have to interface to?
2. Look where you are now and define skills that you are going to need to move to the desired solution.
3. Never underestimate change management.
4. When evaluating a package first decide what you are looking for: a flexible toolbox, an easy system to interface or an off-the-shelf solution.
5. Old systems cost more and more to maintain and become less and less flexible.

SPECIAL REPORT



or international banks operating in Switzerland fall into this category.

In such a case, the most widespread strategy is to integrate a package that has a good market share with as little as possible changes. In the case of the banks that we have mentioned, in the way of packages, there is one market leader and two challengers to choose from. As there should be no great need to tune the system to meet specific business processes, any sort of customisation will only increase costs and will not provide any gain for the bank.

Depending on the size of the institution, it could even make sense to outsource part of the operations, provided of course that such a service is available. Choosing a very standard package will also ensure that there are sufficient skills and services available from third-party suppliers to help carry out the migration and provide support for the new system.

Integration approach

If IT is not a differentiator but the Bank has to cope with supporting a wide range of services, taking a package off the shelf and changing one's business processes may not be sufficient.

As the range of services provided by the bank grows, the Information System invariably becomes made up of several systems or packages which are linked together. The Bank's information system is not homogeneous; instead it's spread out within several packages or systems which are integrated together: the actual boundaries of the Information System can become pretty difficult to define.

In this case, the requirements of the future kernel of the Information System are easier to define by looking at the interfaces with each one of the other systems or packages. The successful system will have to be a package that is easy to interface with existing systems.

Toolbox approach

If IT is a definite differentiator and at the same time the scope of services provided by the bank is narrow, it makes sense to start by listing user requirements or functionalities that the future system should provide.

There will almost certainly be a considerable amount of customisation needed. In this case, the most interesting system will be the most flexible one.

▶ from taking any radical steps to migrate Information Systems (the risk was too high). On the other hand, in some cases, they revealed just how difficult it was to update the existing Information System.

After the year 2000, many banks launched studies to investigate how to migrate their Information System. The economic downturn in late 2001 slowed many of these projects down, but their determination remained. Some banks took another final look at incremental solutions such as partial reengineering but, by the year 2003 to 2004, several had already made up their mind to migrate.

Several ways, several strategies

When studying the approach that various banks have taken to changing their Information System, it's striking to see that there are several very different approaches. Each one seems to be appropriate for a specific situation. First let's consider two different issues:

Does IT give the bank a competitive advantage?

Information technology can be seen as a differentiator or not for the bank or financial establishment. For example, in the case of a

partially competitive environment, such as that of state owned banks, information technology is not a market differentiator.

For other banks who position themselves as business process outsourcers, information technology is a differentiator. Depending on their market position, Private banks use IT to support tailored solutions for their clients.

How wide is the range of services provided by the bank?

The other major factor to bear in mind is the range of services provided by the bank. Private banks for example provide a narrow range of services whereas retail banks offer almost every kind of service. In turn, this has an impact on the way that a major migration project should be designed.

As described in figure 1, depending on the degree to which IT is a differentiator and the range of services provided by the bank, the approach to changing the IS will be very different.

Business process reengineering approach.

Some banks providing the narrow range of services to their clients at the same time do not rely on IT to retain or gain new clients. Private banking branches of large European

Development approach

Banks for whom IT is a differentiator and who also provide a wide range of services are faced with the major issue: IT will remain a major cost.

It's very likely that there is no package or off-the-shelf solution which can fit their needs. Outsourcing could reduce costs but it could also become a major problem: the outsourcer would inevitably try to gain new clients among the Bank's competitors in order to become more efficient.

Therefore, IT remains an internal activity.

Each one of these approaches requires specific skills, processes and knowledge. It would seem that the main difficulty in migration projects is being able to define which vital skills are needed. However well designed it may be, a project will fail if the wrong approach is being used or if crucial skills are lacking.

Personally, if I was going there, I wouldn't restart from here!

You may have heard the joke where a town dweller asks a peasant his way to a major city. After a while, the peasant calmly says "well quite frankly, if I was going there, I wouldn't start off from here!". It may just be a funny story, but it also contains some wisdom.

When changing their Information System, banks will also have to change their approach to the way that systems are implemented and supported. It's just as important to know where you're coming from as it is to know where you're going. Pictet's experience shows how vital it is to build up the right skills when carrying out such a project. Identifying missing skills and processes is a key success factor when implementing a new solution and they are not the same for all banks.

There are many other interesting instances. For example, some banks are engaged in full outsourcing relationships and they could be tempted to move to a multiple sourced solution. The idea is pretty simple: buy the best of breed in the way of packages, integrators and hosting solutions. It all sounds very attractive; however, their current service levels are solely based on the availability of an application: they have no visibility of lower level service levels. In order to merely carry out a decent request for proposals, they will have to master entire new fields. For example they will need to define and manage several layers of service level agreements for which they require new technical skills.

However attractive the solution may be, it's worthwhile taking some time to seriously evaluate the amount of new skills and processes that need to be implemented first. ■ D.R.

ART IN B&F



François Houde, Ming XIX, 1988

An interview with Kurt Dierauer, Pictet's Head of IT Division

Founded in 1805 in Geneva, Pictet & Cie is today one of Switzerland's largest private banks, and one of the premier independent asset management specialists in Europe, with over CHF 225 billion in assets under management and custody as at late December 2004. The Bank is a partnership currently owned by eight general partners who have unlimited liability.



Kurt Dierauer

The Pictet Group is an asset management specialist focusing mainly on private and institutional asset management, fund administration and management, global custody and Family Office services.

The Group employs over 2,000 people in 16 global locations including: Geneva, Lausanne, Milan, Turin, Florence, Madrid, London, Frankfurt, Zurich, Luxembourg, Paris, Montreal, Nassau, Singapore, Hong Kong and Tokyo.

In late August 2003, Pictet & Cie announced that they had signed a contract with AVALOQ to implement a new banking system. The news sparked off a lot of interest. While many retail banks were still pondering how and when to migrate to a new

package, one of Switzerland's largest Private Banks had decided to integrate a very innovative and modern system.

Therefore, I asked Kurt Dierauer, Pictet's Head of IT Division, to give us some first-hand insight on the history of the project. Mr Dierauer kindly answered all of my questions and gave a very enlightening and interesting account of the history and status of the UNITY project.

Why did you decide to change your information system?

We had been running our own IT system since 1967 and in 1985 we decided to migrate to a database system and to change the programming language. At the time we needed a system with a very good data dictionary in order to reuse code whenever possible. We looked at the market and chose a very good database system: IDMS with its programming language ADS/O. The system that we selected proved highly satisfactory and at the time it really fitted our requirements: 20 years later we are still using it. While carrying out the Euro and Y2K projects, we realized that a tightly integrated system, such as IDMS, did have several drawbacks. In addition, by that time we needed a real-time system and wanted to integrate new functions in order to support in the best possible way all of our growing business activities. In addition, we were also running several different systems throughout our various locations and it made sense to move towards a unique information system for the whole Group.

In 2001 we decided to move away from IDMS and started scanning the market to see which kind of technology we could move towards. We looked into several solutions to move away from such a tight integration between the database, processing and display mechanisms. Given that one our

goals was to move towards a unique system in all of our locations, we named the project Unity. We started by evaluating DB2, the initial idea was to migrate to this database in a big bang fashion. We searched for examples of such a migration but could not find any: we therefore abandoned the idea for it seemed too risky.

We then started looking at another system which we had built in-house and that we are running in several locations: SFI. It was based on an AS400 and was a real-time system, even though it lacked all necessary functionalities, it was a good candidate to build upon. In 2002, we started to evaluate how to build up SFI into the future IS system for all of our branches.

Was there not a major change in strategy and a move from an in-house development to the integration of a package?

Not at all, you must realize that we were never interested in using a sort of Greenfield approach. On the other hand, we also know that we will always need to customise our IS to fit our business requirements in a very precise manner. Until late 2002, we were still planning to use SFI as the basis for building our new system: we definitely did not want to start from scratch. We had looked around for a package and had not found one that could not only fit our requirements but that had already been implemented on a scale comparable to ours. We had already looked at AVALOQ in early 2001, but we could not find a large enough implementation, so we did not judge that it was a viable option.

In mid 2002, Clariden Bank in Zurich went operational with AVALOQ for over 600 users. We therefore decided to have another look at the package and set up a very intensive workshop in Zurich in January 2003. We also noticed that, as a company, AVALOQ had

grown quite a lot and had over 80 employees. In parallel, we decided to freeze the evaluation of SFL. During one week, a team of over 30 people (half business-, half IT-people) checked each one of our requirements against the functionalities that AVALOQ provided. We used a very detailed document that we called Pathfinder which contains all of our requirements; our conclusion was that AVALOQ covered between 60 and 70% of all our requirements.

Since 1967, we had always developed all of the source code of our information system in-house. Given that this was the first time that we were considering buying a core system, a major strategic decision had to be taken and we gave a very detailed presentation to the partners of the Bank in February 2003. The decision was taken then: go ahead with AVALOQ.

Was it not difficult to size up the project and estimate how long it would take?

We started the AVALOQ project in July 2003 and at that time we did not have an estimate from the supplier as far as how long it would take to integrate our requirements: we had not yet defined precisely the gaps. We estimated at the time that implementing any package would take at least 18 to 24 months. By May 2004, we were able to define a detailed project plan and we began using it and could to measure progress against our targets, as far as going live, we looked for a date that would be a beginning of the month and also a weekend. The best candidates were the first of October 2005 or the first of January 2006. As far as functionalities are concerned, we are aiming to go live with the same scope as our current information system. We will naturally keep some other packages which are highly specialised, such as trading systems or other interfaces, but when we implement the system we will be able to eliminate several other packages that had been added to our existing system to cover all of our business requirements.

With more experience now, what is your opinion of AVALOQ as a solution?

Basically, what we have done is that we have bought an engine

in the same way that car manufacturers now share engines and design different cars based on them. We are designing and implementing an information system that fits our business requirements very precisely and, at the same time, we will benefit in the future from major upgrades of the kernel of the system. This means that new legal requirements or annual changes in inter-bank communications will be integrated by the supplier and we will not have to make these changes ourselves to keep up with these requirements. We will be able to concentrate on business related or user requirements. This is exactly what we wanted to reach and we are therefore very satisfied with the solution.

As far as the technology that is behind the solution, it is not only the very standard but it is also state-of-the-art.

One of the most remarkable features of this solution is that it is process driven on all levels: users and programmers actually see processes which really mean something in banking business terms.

What lessons did you learn from this project?

Although it is obviously far too early to draw any major conclusions, we have already learnt a lot from the Unity project. I would say that the first lesson that we have learnt is to never underestimate the necessity to carefully manage change. When we started on this project we already knew that change management was a big issue and therefore we took every possible step to deal with it in the best possible way.

We contacted other banks who had already introduced AVALOQ and they gave us some very valuable feedback, for example we followed their advice and trained power users to become in turn trainers for end-users. We have also to integrate training for our independent asset managers and we have set up an Intranet to accompany the whole change management and to track training for all users.

We were definitely right when we decided not to underestimate the effort put into change management!

While we were managing a project we also had to make some fundamental changes in our approach to information technology implementation.

So in fact, did the Unity project completely change your IT organisation?

Definitely, we have moved away from a mostly internal development approach to a more integration approach, which requires a whole new set of skills.

We have to build skills which we never needed before. We have now industrialised processes such as release management, testing and integration to a very large extent. We have implemented best practices and quality assurance and defined new functions such as test-scripters, release managers, change managers, etc.

One could think that by buying a package, the headcount of the IT department could be reduced, in fact what we can do is to stabilise the size while increasing considerably its capacity to implement business driven or user driven functionalities.

What are your next targets?

After implementing the system in our head office in Geneva, over the next two years we will roll it out into all of our branches. Meanwhile, we will implement new business functionalities in the system which will therefore become available throughout the whole of our bank thanks to the Unity project. ■

ART IN B&F



Chuzaburo Ishibashi, *The Earth III*, 1985