

PETER LIGEZINSKI, CIO OF ALLIANZ INVESTMENTBANK THROWS DOWN THE CHALLENGE TO VENDORS: COME UP WITH A NEW ARCHITECTURE THAT CAN RUN THE FLEXIBLE BANKING SYSTEMS OF TOMORROW.

THINK FLEXIBLE

FLEXI-TIME

- Today's banking systems are not flexible.
- Storing data across silos is costly, inefficient and disruptive.
- Communication is needed between banks and IT architects.

the Japanese did rice futures in the 17th century and worked out the candlesticks theory at that time. The Medicis used double-entry bookkeeping 500 years ago. These things have not changed; they are simply rediscovered.

What has really changed with the rapid technological development of the last three decades? The quantities of single business transactions, clients' know-how about transactions, the ability to handle thousands if not millions of transactions within very short periods of time – these are all big changes. We also have the ability to be more exact and to keep easily accessible records in our electronic archives.

The future of banking technology is always being predicted. One always hears the same faddish statements made by newer/younger vendors who have no idea about the banking business of the banks they try to computerise. What has improved is technology itself; we have faster communication, we have the capability to immediately access vast quantities of data and we still have problems coping with regulations and laws, new business ideas, changing charts of accounts, rules of evaluation, etc.

The principal philosophy of banking business has not changed for centuries. 'No,' I hear you shouting, 'we have futures, options, hedging and more!' But

principal structure of our internal operations is the same. We divided our banks' operations into specialised silos – front offices, back offices, client support, loans, mortgages, payment operations, accounting, reporting and so on. That means internally we have to exchange data between the silos. Later we reconcile this data to provide for accountability and transparency or we aggregate data to provide for reporting. Our internal IT architectures usually mirror those traditional structures. Each silo runs its own application software and maintains its own data.

Our oh-so-modern approaches to computer science and programming resemble the alchemy of the Middle Ages. They are faddish, changing with any new gurus, trends or fashions that come along. Modern computer science announcements and 'discoveries' are similar to the patterns

of medieval research. All that has changed is the wording. Instead of saying, 'Take a spoon of spider eggs and you will be healed,' we now say, 'The newest OPS, UPS, BUPS technology is going to improve your software so that it will be the source of your competitive advantage.'

Greater flexibility

The current business model, with its specialised divisional silos, is not flexible. Despite automation there are too many people working in back offices, the products are complex and the costs cannot easily be reduced. The discovery of mistakes is complex, because the same data is often stored and maintained within different silos in the bank without being shared. After the discovery of a mistake, the handling required to rectify it is complex and cumbersome. We need programming specialists who make changes in our complex systems as soon as users say, 'But I meant something else' or the regulators want a new classification of data. This many specialised people working within silos must work together, using their own silo data – most of us know how disruptive such a situation can be.

In the future, we have to provide banks with systems that are so flexible that they can be adjusted to the dynamic changes of the business world at any time directly by their users, without support from computer specialists. It might be that the bank of the future will have no tellers but the personal advisory service will still be there.

The difference between a bank now and the bank of the future will be in its one back office, which will handle all operations from every division. It will use computers to reduce manual work and simplify its operations to provide for better and more accurate data. The management of future banks will be able to establish their own banking products ad hoc by introducing them immediately and faster than the competition can. These products will be supported completely with an integrated processing system that can provide all information to support the managers with reliable data about the current business and provide for complete accounting and reporting, and which will immediately permit customers to proceed with business cases using the latest defined banking product.

The bank of tomorrow will offer flexibility to its customers. Bank management will be able to monitor the risks and operations to be instantly protected against the dangerous exposures coming from the nature of certain business activities (such as loans, securities and international activities). The traditional approach, where the application systems are not adaptable, will have to fail because the cost of software maintenance and the time gaps necessary to introduce new software components could get bigger and bigger.

Architecture, architects and vendors

Future banks will be built around a totally different internal infrastructure. One back office will cover all of the operations required to conduct business in all the bank's divisions. One central database will be accessible and used in all bank divisions. One suite of generic applications programs, which are independent from the business, will be used by the whole organisation.

The most modern generation of computer languages will not be the solution to flexibility. We should not computerise what already exists – we should enter the world of radically different banking architecture. This architecture will change the internal structure of banks; there will be only one central back office providing execution for all business units.

The bank's accounting and reporting will also be a part of that new back office. This architecture will use one centralised database for all business units. Furthermore, one single data entry (manual, automatic, semi-automatic) will immediately be followed by the creation of all required accounting and database entries, which will be posted and registered in all data tables that are related to the business case.

There are only a few bankers who understand IT and, vice versa, there are only a few IT people who understand the banking business. The architecture of the future banks will not be simply an enhanced version of the architecture of today; it is going to be a radical departure from the conventional approach. The vendors who recognise the need for flexible systems and who will get them ready will win the coming projects to replace core systems.

THERE ARE ONLY A FEW BANKERS WHO UNDERSTAND IT AND, VICE VERSA, THERE ARE ONLY A FEW IT PEOPLE WHO UNDERSTAND THE BANKING BUSINESS.

Flexibility works

Can flexibility really work? Does it provide competitive advantage? Does it improve profitability? Yes. The impact of making applications and organisations flexible is revolutionary. Let us look at just one example. One middle-sized investment bank in Vienna handles nearly 100 mutual funds (all activities: NAV, settlements, custodian for securities and fund units) using over 7,000 financial instruments. The bank also runs normal current accounts, custody accounts, loans and mortgages.

Up to 100,000 work processes (securities sales and purchases, payments, cash transactions) pass through the bank every month. A further 50,000 SWIFT messages are handled monthly, most of them processed directly as soon as they are received. This service is provided for thousands of customers. It also provides comprehensive reporting for regulators (always changing) and for clients (moderate rate of changes). All of this is done with 13 people employed in the back-office covering all business areas. There are over 80 million data records permanently accessible stored in the one central database.

With assets under management of more than €10bn, the bank has never spent more than €2m annually on IT (personnel, hardware, network and operating software). Within this budget the IT provides for tailored development that always has the primary objective to design flexible applications and to create an organisation that could use this flexible solution. So go for flexibility, take your time and win the race. FBA