Papers

Developing a truly customer-centric CRM system: Part One — Strategic and architectural implementation

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Abstract

For several decades, banks in Germany were in hibernation. They had little interest in private customers and small corporates. This has changed massively over the past few years, and now there is barely a day when there is no news of some planned or failed merger, closure of branches or other new initiative.

People and markets are changing just as the competition is. This — alongside rapid technological progress — is resulting in permanent modifications and the active embracing of the changes involved. Deutsche Bank 24 is one of the banks which has embarked on this course and actively moulded it over the past few years. This two-part paper firstly examines CRM in the context of Deutsche Bank 24, and in the second part looks closely at analytical approaches to various business opportunities and their implementation.

People, markets, competitors

CRM in a German bank

'The customer is king' was once just a saying. Today it is a mission-critical statement. Until a few years ago, banks could afford to ignore this trend as customers were said to change banks less frequently than spouses. As in other sectors, customer loyalty is fading quickly. In the automotive insurance segment, every fifth customer now changes underwriters once a year. The number of changers has almost doubled in the past few years. In the Netherlands and the UK, this figure is as high as one-third.[1] Defection rates of over 10 per cent per year are no longer the exception in the banking sector, with loyalty continuing to decline.

Thus, the consumer is becoming increasingly emancipated. Spurred by growing transparency with respect to products and conditions in the market-place, new information and purchasing processes are exerting pressure on margins and forcing suppliers to improve the quality of their service. The requirements being made of a modern bank are growing: today's customer expects perfect service around the clock using the communications channel of his choice (Figure 1).

Whereas just a few years ago automatic telling machines and online banking were rare, today it is assumed that roughly 60 per cent of all customers communicate with their bank via different channels. This changed consumer behaviour has triggered reactions on the part of banks

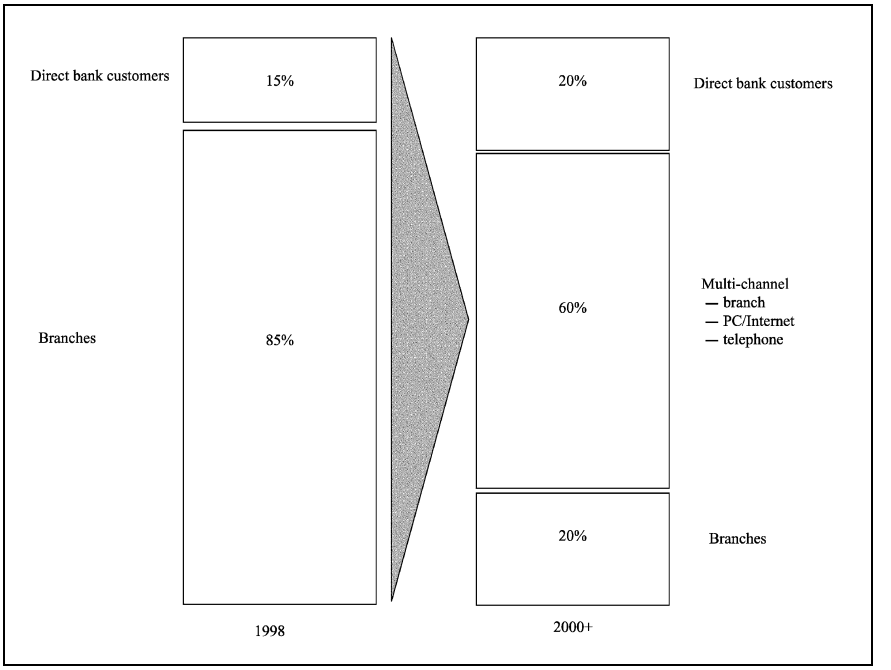

Figure 1: The move away from the branch to the multi-channel user

Multichannel diversity

ranging from the closure of branches to reconfiguring back-end processes. Yet there is also good news, such as the revolution in attitudes to securities investments over the past few years. Banks have benefited substantially from this development. Given the uncertainty surrounding pensions, this offers interesting potential for opening up new business and extending existing activities.

The European banking market is gradually converging, spurred by technological, political and economic trends. The introduction of the euro in 2000, the establishment of pan-European or even global private-customer banks and the mass acceptance of the Internet are amplifying this trend. New market opportunities — as well as new competitors — are arising. Competitors range from Internet banks and insurance companies to retailers, some of them with substantial customer bases which they now want to leverage for financial services business.

Technical challenges

Technology is not a panacea

In 1943 Thomas Watson, who was president of IBM at that time, said that there was no need for more than five computers around the entire world. Today, roughly 30 per cent of German and 60 per cent of US households own a PC. The Internet arose less than ten years ago; today it has become a basic technology — at least for banks. Market cycles are continuing to accelerate, from telefax to e-mail, from fixed-line communications to mobile telephones and from e-commerce to m-commerce.

The new technology also has a number of drawbacks, however. Many a bank saw ATMs as an all-purpose remedy for lowering costs at stationary outlets. Today, they wonder why they no longer get to see many customers face to face, with the result that marketing has become more difficult.

This anonymity is even more pronounced on the Internet. Ten years ago, customers seeking a loan to buy a house went to their local bank, maybe sought a few offers from other banks, but then ended up taking the loan out with their own bank (after brief negotiations). These days, the customer sends off an intelligent electronic agent to search the Internet. Loaded with details of the customer's personal preferences, it is able to query various banks and seek out the perfect offer within a short space of time. This rising anonymity is therefore going hand in hand with greater interactivity and the number of channels is rising (Figure 2).

Start of online banking

A further challenge is to be found in the networking of all communications and distribution channels. The number of online accounts in Germany has risen sevenfold to 10 million over the past five years. Yet a customer who has a problem on a website at eight in the morning, cannot be helped by the call centre at ten o'clock and then goes to his local branch in his lunch break is not really going to want to describe his problem yet again.

A modern bank's answer

Thus the modern bank not only faces changed consumer expectations, new markets and mounting competitive pressure but must also overcome technical obstacles. At the same time, however, sight should never be lost of the customer, the actual source of added value.

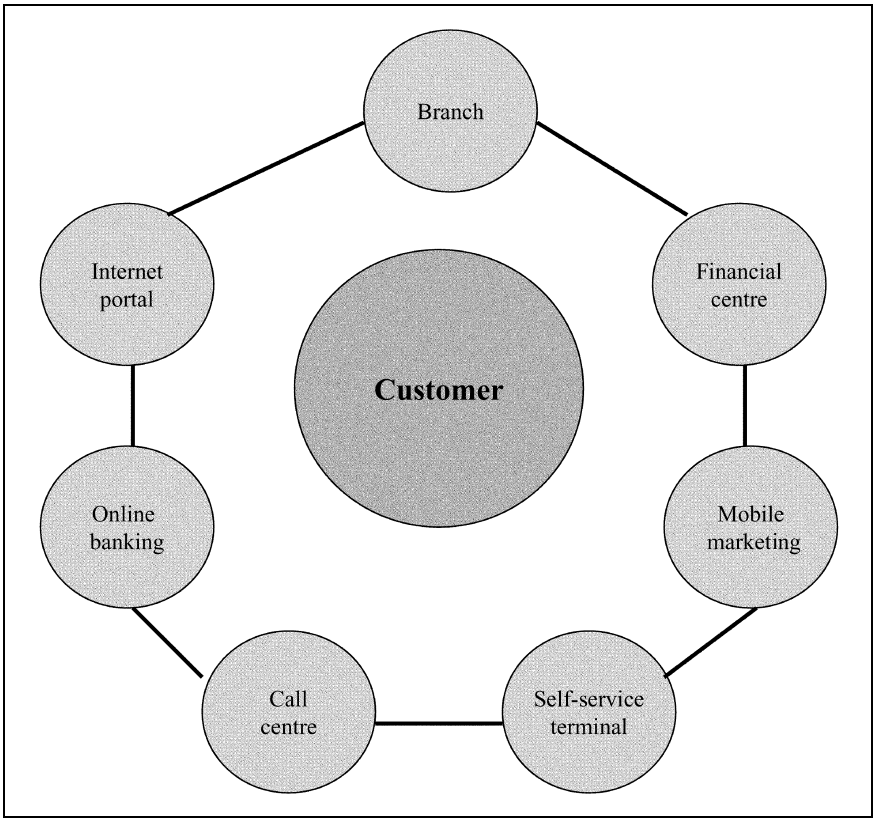

Figure 2: Multi-channel access for customers

Customer first, product second

Historically, most banks have operated on a product-oriented basis designed for mass business. However, the future lies in customer-centricity and catering to individual needs. Thus, banks face the need to change organisational structures, processes and behaviour — a complete turnabout in how they do business (Figure 3).

Instead of trying to find one product for as many customers as possible, banks are now attempting to identify the needs of each individual customer so as to offer him the right product at the right time.

Unlike other sectors such as retailing, for example, banks hold enormous quantities of data on their customers, their behaviour and their wishes. This competitive advantage can be leveraged using modern database systems and techniques such as data mining. The task is to 'excavate' the information and implement it as genuine knowledge for each employee. This is precisely the vision embodied by CRM. Managing customer relations puts short-term product sales in the background and focuses on the long-term revenues which can be derived from each individual customer relationship. Far more than was the case before, looking after and advising customers will form the basis on which customer value is differentiated. Many banks are spending on building up and using such systems. One such project will now be described.

Target definition and CRM process

Frequently, the first error is made even before a CRM project commences. The targets to be reached are often not defined or, at most, worded only as a very vague vision. Frequently, however, it is difficult to define objectives clearly, as the differing internal interests within a company also have very different targets or a very different view of the same targets. Whereas a member of a management board will tend to have strategic targets, such as to intensify business in a certain customer segment, a member of the research department may want a simpler or quicker data-mining system. The following section illustrates these views and incorporates them in a single CRM process.

The individual customer's needs

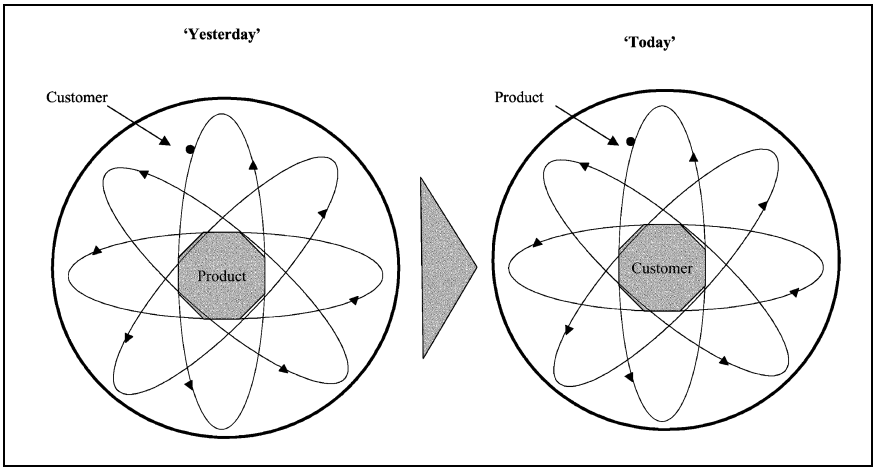

Figure 3: From product to customer-centricity

Strategic targets of the bank

Clear growth targets

When Deutsche Bank 24 started business on 1 September 1999, clear targets had been defined and communicated. Customers had been recruited from Deutsche Bank's private and corporate customer business as well as the direct-banking customers who had previously been signed with Bank 24. The aim was to prove that the frequently unloved business with small-scale customers could be operated profitably. To this end, two strategic objectives were formulated: the cost/income ratio was to be improved to 70 per cent, and the bank wanted to achieve over 10 million customers by 2007 to secure a critical mass in terms of market share. These are clear growth targets tied to the bank's absolute size and income.

Incorporated in the life cycle of a customer relationship from solicitation to regaining, this produces the picture illustrated in Figure 4.

To achieve these ambitious targets, it was necessary to take broad-based measures throughout the entire bank to optimise operations, from staff qualifications to the consolidation of branch outlets. From the point of view of customer relationship management, it was particularly important to become more acquainted with present (and potential) customers and to make this knowledge available to all employees in a suitable way.

Total availability of customer data

It is and always has been true to say that there is no such thing as mass business. Each customer is an individual. Given the bank had over 7.3 million customers, the steps required to reach this goal must be taken systematically: each employee must be able to access the necessary information on each individual customer at all times and at all places using the systems available. To this end, he must be able to answer the following questions, among others.

— What products and in what volumes does the customer hold?

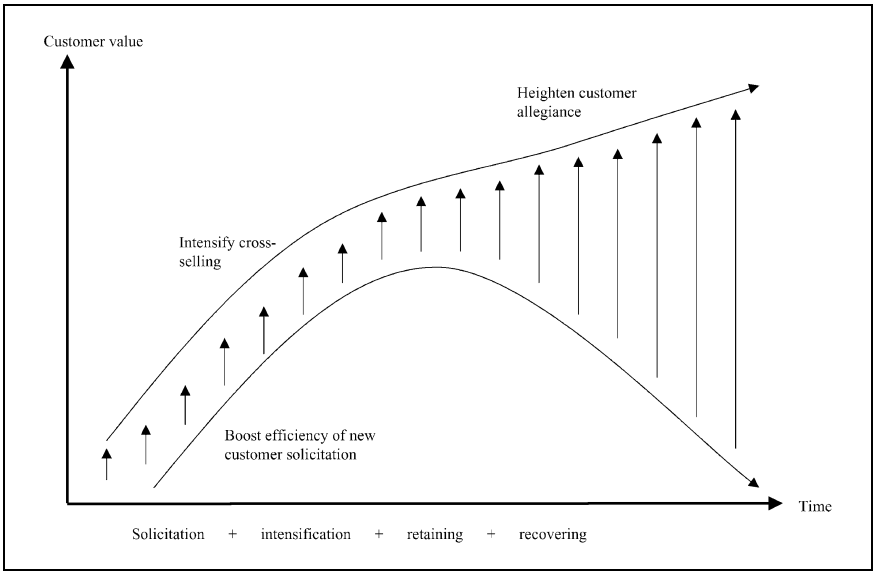

Figure 4: CRM targets in the customer life cycle

The customer profile

— What products does the customer still require?
— What other services are suitable for the customer?
— What distribution channel does he prefer for what services?
— What approach and what benefit promise is suitable?
— What (credit) risk does he entail?
— How loyal is he to the bank?
— How strong is the customer bond?
— What is his current profit contribution?
— What potential does he offer for future business?
— Is he a multiplier?
— Would he gain a new customer for the bank?

These questions must be answered not only for customer segments but for each individual customer.

Technical and organisational targets

Another category of targets comes into view when users involved in analysing customer data or marketing and sales employees are asked about the problems they have in day-to-day work. Frequently, you will receive answers expressing concerns about timeliness, quality, resource allocation and operational constraints.

The problems range from technical infrastructure to data quality and reporting as well as the implementation of campaigns. The aim is to reduce dramatically the time required for technical activities so that more time is available for analyses (Figure 5).

Problems with technical infrastructure and legacy systems

The technical infrastructure of banks in particular is frequently very old or not suitable for analytical tasks. The data are strewn across various systems and processing time on mainframes is expensive. A modern marketing database or a datamart based on a data warehouse can solve these problems. It also addresses the need for consolidated depiction of high-quality data.

As a result, there is more time available for the really important tasks:

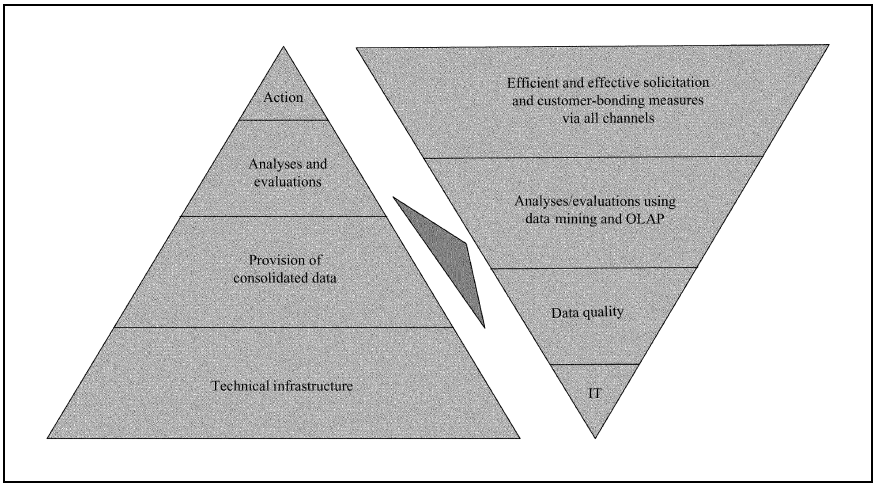

Figure 5: The work pyramid

The building of a data warehouse

high-quality analyses and efficient and effect campaigns to gain new customers, encourage cross-selling or bond existing customers. Thus, from the point of view of employees, it is necessary to modify the working environment to meet the company's requirements.

CRM targets

The CRM process combines the two different views of the targets and makes them visible (Figure 6).

The first step is to optimise the technical infrastructure and implement the necessary systems (hardware and software). To this end, it is necessary to prepare data coming from various different source systems within the bank and optimise their quality. In the process, most of the problems mentioned by employees are remedied or at least minimised.

Optimising the structure

Then, modern systems and methods are used to analyse the data to generate information decisive for competition purposes. Ultimately, solutions are sought for questions which everyone should be able to answer for each customer. Particular attention should be paid to calculating profitability for each individual customer as well as the customer's product preferences.

This information can now be used to develop strategies and campaigns. The profitability of customer relations is boosted and cross-selling potential leveraged to optimum effect. By aligning investment in customer relations to current profitability and future potential, it is possible to achieve optimum distribution of resources.

What is particularly important is that customer relationship management is not a single effort along the lines of a project, but must be seen as an ongoing process within the company. It is never possible to eliminate all problems in the first step. Many a data warehouse project sought to provide the universal solution to everything, only to fail dismally. It is only by repeating the cycle time and time again with

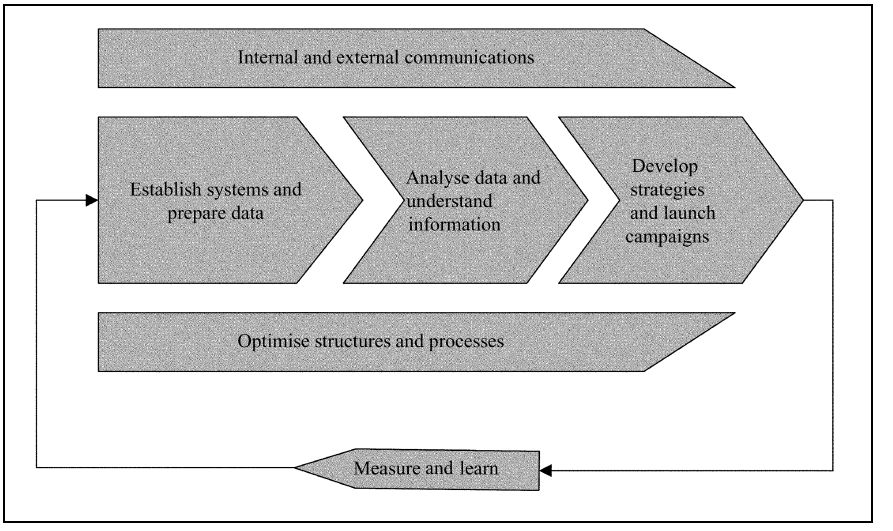

Figure 6: The CRM process

increasing intensity that it is possible to achieve optimum results. Conversely, it is possible to achieve remarkable success in small preliminary steps ('quick wins').

It is also important to note that CRM projects are not IT or marketing projects. With their numerous interfaces with marketing (customer solicitation), controlling (customer profitability), corporate communications (internal and external), the employee representative council ('the glass customer and employee') and not least of all the management board (corporate strategy), such projects are all-embracing and require the support of all company divisions. This is why it is crucial for them to be backed up by a communications programme.

The CRM process

Integration in the company is also reflected in the optimisation of processes and structures in the light of CRM principles. Customer-related processes and customer-segment-oriented structure are examples of these necessary components.

Data and systems: A case study

The first core step is for the systems to be established and data to be prepared. This step generally entails many IT-related problems and is therefore split into three stages with a test system.

Analysis

In Stage 1, existing data and their sources were initially analysed and the current processes, particularly in the marketing area but also in other relevant areas, such as distribution, were examined. This was used as a basis for deriving the future target processes and specifications for the system architecture. In addition, an economic viability calculation was performed. After these preliminaries had been completed, a decision on implementation was made in the form of a board approval request.

Testing

In Stage 2, a tentative data model was established, part of the existing data was entered in the database and, in this way, a test system was implemented. At the same time, testing, user training and the roll-out stage were designed. Many data and systems errors were detected in this stage and were therefore identified during the actual roll-out.

Roll-out and training

Stage 3 entailed the implementation and roll-out of the actual systems. This involved intensive testing, particularly to ensure data quality. This stage was accompanied by staff training (particularly on the use of the new software components) and a communications programme to enhance acceptance. The interfaces with data sources as well as the distribution channels were also implemented in this stage. A historical concept was developed for data, providing access to several years of data for analyses. These time series are very important for many issues, such as early detection of customer defection and hence preventing terminations.

Such a system is never finished. New sources of data, new distribution channels and new software components are constantly being added. Planning should allow for this from the outset of the project. To this end, it is possible to split the overall system into logical components, allowing the individual modules to be replaced.

The integration of a CRM system in a large bank's IT environment poses a particular challenge. In some cases, these systems have arisen

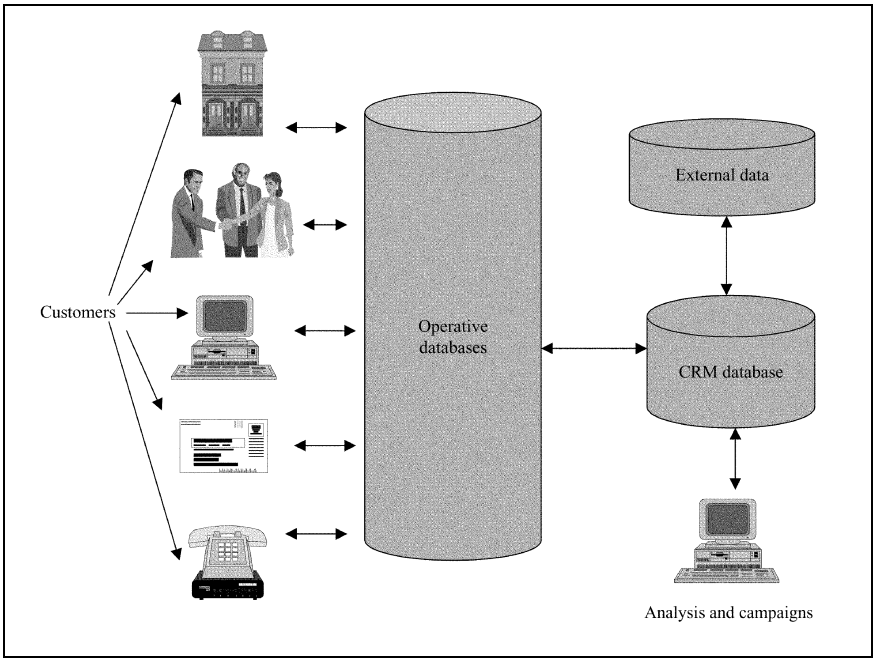

Figure 7: Integration of the CRM system in the IT environment

over decades, resulting in a complex structure. In simplified terms, the structure takes the form shown in Figure 7.

The customer comes into direct or indirect contact with the bank's systems via numerous communications channels. Static and transaction data are stored in the operative databases. Extracts from these data together with external data are transferred to the CRM and analyses conducted.

Provision of consolidated data

Complexity of data model

In accordance with the real world, the data model which is stored in the database and historicised for several years is very complex. It contains more than 1,000 data fields in over 100 tables. Figure 8 illustrates this.

At the core of this data model is the customer with his personal data. On the right-hand side there are numerous tables on product utilisation, some of which may be fairly complex and whose contents depend heavily on the project in question. Depending on the evaluation depth required, the tables must hold a large volume of different information. If, for example, you want to determine the likelihood that a customer will subscribe to an initial public offering (IPO), it is important for the database to hold information on earlier subscriptions, etc.

In the top left-hand part there is information on the interaction with the customer, such as marketing activities and mailing shots already sent as well as the customer's reactions to these campaigns. Finally, the bottom left-hand corner holds the bank structure and the way that the customer is networked with this structure. Here as well, a very considerable depth of information is possible. If, for example, you want to refer customers to a

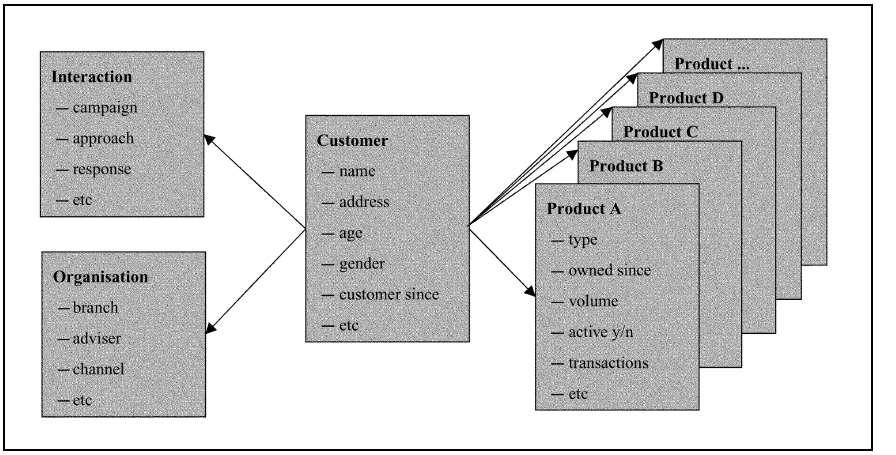

Figure 8: Schematic data model

branch, not only the original branch (the one to which the account is assigned) is of interest. An analysis of ATM usage can show which branches are used the most (for example, close to where the customer works).

As there is no such thing as having too much data, it is particularly important to be able to modify or extend the data model flexibly and quickly. This must be planned early on. Modern development methods and software systems for providing (mobilising) data can be of assistance here.

Set-up of a data model

Data quality

On paper, such a data model frequently looks very good; however, when it is actually used, problems concerning data quality frequently arise.

— First of all, the technical data quality — whether the data can be properly entered in the database or not — should be determined. Errors in this area can be addressed by simply modifying the replication rules in the database. Typical problems relate to differences in the way that data is expressed (is the date shown as 10/5/1971 or 71/5/10 or . . .).
— The second step concerns shortcomings in the formal quality of data: incorrectly completed fields (text in a field defined for numerical input) or empty fields (does 'nothing' mean 'zero' or 'I don't know'?). These problems are a good deal more difficult to solve but this is still generally possible in individual cases.
— Finally, there are frequently problems in connection with the quality of the data content, such as incorrect salutations, wrong addresses, the wrong job code or even non-existent products. It is generally not possible to remedy these errors centrally as the information required to do this is available only locally.

The fourth level of data quality relates to the absence of necessary data. Using external data to substitute missing internal data is described in the next section.

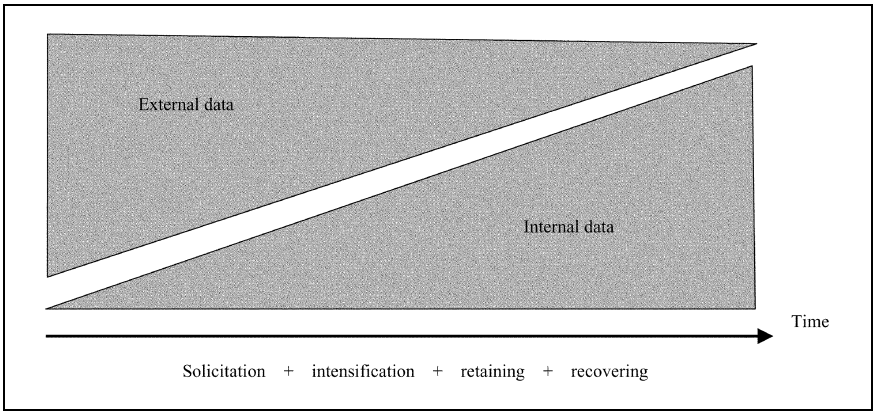

Figure 9: Importance of data in the customer life cycle

Use of external data

In the course of a customer life cycle, banks collect copious data on customers and their transactions. These data can be used for analyses to determine the optimum service and offerings to the extent permitted by law. However, such information is not available at the beginning of a customer relationship even though it is particularly important at this stage. This problem can be alleviated by using external data to substitute the missing internal data (Figure 9).

It is standard practice for banks to lodge a credit-rating enquiry with a consumer information service. Similar databases also exist for marketing purposes providing details of the microgeographic residential setting ('birds of a feather flock together'), and information on the customer's house, neighbouring roads or status. This information can also be used to identify potential from customers with accounts at several banks. In such cases, the internal data indicate low profitability. The external data can be used to extend this view and highlight high potential (such as cross-selling opportunities).

Data check and enrichment

Conclusion

This paper has illuminated here some of the strategic and architectural implementation of developing a truly customer-centric CRM system. The second part of the paper will look closely at analytical approaches to various business opportunities and their implementation.

Reference

1. 'Der DircktBanker and Direkt Versicherer' (2000) *Der Direktbanker and DirektVersicherer*, Issue 16/2000.