"ALIGNING IT WITH THE BUSINESS:
A COMPARATIVE STUDY OF TWO BANKS"

by

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Abstract

This paper presents a comparative study of how two banks, Banco Comercial Português (BCP) and Continental Bank have each chosen to align information technology (IT) with their businesses. While BCP manages IT in-house, Continental Bank has chosen a very different route - it became the first major bank to completely outsource all of its IT in 1992. Despite their apparently diametrically opposed approaches to managing IT, both banks face the problem of effectively linking IT to their business strategies. This paper describes the particular approach used by each bank for aligning IT with its business and draws some general conclusions from a comparative analysis of their experiences.

Keywords:  
MIS management, MIS Alignment, MIS Planning, Outsourcing, MIS Success.

ISRL Categories:  
EF02, EF04, EL02, EL03, FD03, FD04.
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INTRODUCTION

Starting on May 6, 1986, Banco Comercial Português (BCP) has grown to become one of Portugal's largest and most profitable banks in little over half a decade (see Figure 1). In mid-1993, it had around 300 locations, 4300 employees and the equivalent in Portuguese escudos of over $11 billion in assets. BCP's extraordinary growth had been marked by a continuous series of innovations, remarkable for the Portuguese banking environment in the late 1980s. None of BCP's competitors have been able to match either the rapidity or diversity of its innovations. Technology has played a critical role in enabling BCP's innovations. However, BCP's leadership position arises less from the use of cutting-edge technology as from a successful alignment of IT with its business. Today, BCP is an acknowledged leader in the strategic use of IT within European banks.

In the early 1990s, Continental Bank (CB) was recovering from the disastrous effects of failed large-scale energy-related investments made during the early 1980s. After a FDIC bailout in the mid 1980s, CB made several tough decisions including a dramatic refocusing of its core business away from retail banking to business customers. Thousands of employees were let go as the bank overhauled its internal structures and systems. Despite the changes, the early 1990s found CB with a weak reputation, strong pressures on profit and a continuous analysis of its every action by regulators, analysts and investors. Operating under such difficult circumstances, CB's management team aggressively started cutting costs in different areas. As part of its cost cutting and refocusing moves, CB became the first money-center bank to completely outsource its IT when it signed an outsourcing agreement with IBM in 1991.

BCP and CB are two different banks on opposing sides of the Atlantic. Both of them have been successful in their own ways. From a small start-up bank BCP is on the verge$^1$ of becoming the largest bank in Portugal within less

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$^1$ As of the time of writing (July 1994), BCP had just launched a bid for Banco Português do Atlântico, the largest commercial bank in Portugal. If successful, this would make BCP the largest bank in Portugal.
than a decade\textsuperscript{2}. On the other hand, CB has moved from a federal bailout to a focused, profitable operation which attracted BankAmerica's attention and led to a decision in January 1994 by BankAmerica to pay $1.9 billion to acquire CB. While BCP manages IT in-house, CB has chosen to out-source IT. Within these two apparently very different approaches to managing IT, both banks need to align IT with their businesses. This paper describes how each bank approaches the issue and draws some general conclusions from a comparative analysis of their experiences.

The issue of aligning IT with the business has been around for a relatively long time - probably since the first applications of computers in businesses a little more than four decades ago. The importance of aligning IT with the business has been found to consistently rank among the top few determinants of MIS success in several surveys (Dickson et. al., 1983; Hartog and Herbert, 1986; Brancheau and Wetherbe, 1987). Different MIS researchers have over the last decades attempted to review and formalize different aspects of this issue and test various hypotheses empirically (Swanson, 1974; Robey, 1979; Ives and Olson, 1984; Lederer and Mendelow, 1987; Lederer and Mendelow, 1988; Nath, 1989; Moynihan, 1990; Jarvenpaa and Ives, 91; King and Grover, 1991; Hartwick and Barki, 1994).

Despite significant progress in research, the alignment of IT with the business remains an elusive goal for many organizations. Business managers frequently complain about the difficulty of "determining organizational requirements for IT; assessing the benefits of expenditure on IT; and assigning priorities to competing IT proposals" (Moynihan, 1990, p. 19). They "consider themselves unqualified to participate directly in decision regarding IT" (Jarvenpaa and Ives, 1991, p. 219) and in general do not feel comfortable dealing with IT issues. These frustrations along with a general business shift towards refocusing on core competencies has fueled a recent spurt in outsourcing IT (Lacity and Hirschheim, 1993a; Lacity and Hirschheim, 1993b). Many managers are led to think that outsourcing IT removes several of the "headaches" associated with managing IT inhouse. However, as this study comparing BCP and CB shows, it is possible to outsource IT, but it is not possible to outsource the management of IT. The

\textsuperscript{2} It should be mentioned that several other private banks started in Portugal at about the same time as BCP. None of these other banks have been able to replicate the success of BCP and most are struggling today (see Figure 1).
responsibility of aligning IT with the business remains upon business managers.

The structure of the remainder of this paper is as follows. The paper has five additional sections. The first two sections provide background information on BCP and CB respectively and describe each bank's particular approach to managing IT and linking IT to the business. The third section evaluates the approaches of the two banks and draws some general lessons from their experiences. The next section compares these lessons with prior research and the last section provides some concluding comments.

**BANCO COMERCIAL PORTUGUÊS**

The Founding of BCP

The Portuguese banking environment was relatively immature till the mid 1980s. Real change only began in 1984 when the government passed legislation enabling individual investors to create private banks in Portugal. Soon after, in June 1985, BCP was founded as a new private bank with a total of 204 shareholders and 3.5 billion escudos [$25 million].

From the outset BCP acted in a professional, rigorous and thorough manner. One of its first actions was to develop a strong internal market research capability. BCP established a "market segmentation" task force to analyze in-depth target market segments, customer needs, existing products and business potential. High net worth individuals and medium sized companies were identified as the most lucrative market segments for BCP to focus on initially.

In July 1985, soon after creating its market segmentation task force, BCP initiated a study to articulate a vision for using IT in support of the bank's overall strategy. The study came up with the following "generic definition" of IT at BCP: applications were to be real time, flexible, based on the client and independent of the branch; and BCP would be a "user" rather than a...

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3 More details on BCP can be found in reference (Dutta and Doz, 1994).

4 This would allow clients to switch branches as BCP grew and offered additional branch locations. At other Portuguese banks, in contrast, clients needed to set up new accounts with new numbers in order to change branches.
"developer" of technology. The study also addressed the two important issues of the hardware platform and the software infrastructure.

The hardware decision was tied to BCP's aim to be a major Portuguese bank. If BCP were to opt for mid-size solution, such as the (then) commonly used IBM system 38, the bank's ability to grow quickly might be stifled. The other choice was a large mainframe in the IBM 43xx series. A large mainframe was expensive but it would allow BCP to meet the processing needs of rapid growth. The board deliberated upon the choices in depth and finally decided upon the mainframe alternative. A senior manager commented on the outcome:

"There is no technical solution to a management problem, but there is a management solution to a technical problem. The beauty of the decision was that it was a management decision, not a technical one. The industry, and some shareholders, thought we were crazy putting one third of our start-up capital into a mainframe computer while opening only two branches."

As BCP's business strategy was built around customers, BCP adopted (after a careful study of the available choices) the CIS (Customer Information System) package from Hogan (a US-based banking software firm) as its core platform. The CIS organized information around customers and gave BCP managers a comprehensive view of relationships with their clients.

**BCP's Rapid Growth**

BCP recruited over 100 talented employees and opened its doors on time in May 1986 with an aggressive marketing campaign. From the beginning, excellence in customer service was explicitly established as BCP's key operating objective. A critical decision in assuring high levels of service was to assign primary customer-service responsibility to the Account Managers. The Account Manager was supported by the bank-wide CIS systems, which provided data on all of BCP's products, as well as a comprehensive view of a client's financial position and dealings with BCP.

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5 BCP was the first Portuguese bank to establish the role of Account Managers for clients.
While other Portuguese banks paid zero interest on cheque accounts, BCP launched checking accounts paying 6% and 5% annually respectively for high net worth individuals and medium-sized corporate segments. Six weeks after BCP's opening, the Portuguese government, in response to lobbying from established retail banks, introduced a regulation limiting interest payments on checking accounts to 4%. However, due to BCP's flexible customer-oriented software structure, BCP was able to develop in two weeks a new product that could "sweep" balances between client accounts. Each evening, checking account balances were swept into overnight treasury bills paying 8% interest and then the balance was reposted in the checking account the following morning. The market response, as one BCP executive explained, was enthusiastic:

"With the fantastic publicity the BCP dual accounts gave us, the fact that no one could copy us easily allowed us to grow quite nicely".

By the end of 1988, BCP was well-established in Portugal with total assets of 296 billion Escudos ($2.02 billion) and a network of 19 individual and corporate branches. Over the next few years, BCP launched a series of different business groups which catapulted it from a small startup bank to a major player in the Portuguese banking market.

In early 1989, BCP launched two other business groups focused on private and corporate banking respectively. A major turning point in BCP's development came in November 1989 with the establishment of "NovaRede", a banking group targeted at individuals in the medium income range. In May 1992, BCP established its sixth business group to serve small companies and independent businessmen. Figure 2 provides an overview of the growth of BCP's banking operations over the years.

The launch of the new business groups was accompanied by a wave of new products and services, all very innovative for the Portuguese banking environment of that time. Figure 3 provides a list of major BCP innovations over the years. BCP's flexible technology infrastructure gave it the unique ability to create and handle complex financial products, which consistently appealed to the Portuguese market. For instance, BCP produced an account paying interest at differing rates depending on the average daily outstanding balance. Technology also helped to differentiate BCP in the eyes of its
customers by enabling it to launch innovative products and services with rapidity and flexibility.

BCP's IT infrastructure enabled NovaRede to maintain a minimum number of staff. NovaRede's maximum of five employees per branch contrasted with an average of 40 for the branches of its competitors. Cost per branch was also low. NovaRede branches took an average of just 18 months to break-even. At NovaRede, BCP eliminated the personalized services of an Account Manager. But NovaRede customers had direct access to the IT infrastructure for their transactions. BCP established a direct line for telephone banking which customers could access round the clock. To overcome the competitive limitations⁶ of Multi-Banco (a centralized ATM service owned by a consortia), BCP developed its own parallel network to provide additional services (not available from Multi-Banco) such as check dispensing.

BCP also developed a system of digitizing signatures that could be called up on-line by a teller in any branch to directly verify signatures on checks (thus reducing dramatically the cost of back office check processing). In addition, if there were insufficient funds to cover the check amount, the teller of the bank had the ability to send an electronic mail message to the account holder's branch to request special clearance. The whole procedure took a few minutes, compared to up to an hour at other Portuguese banks and also allowed a saving of about a million fax messages a year.

A major innovation for NovaRede was the "Salary" account, which resulted from the initiatives of NovaRede's dedicated sales force. The salary account allowed clients to receive access to their salaries on the 15th day of the month (instead of the traditional end of the month), an automatic personal line of credit equal to three months of salary, and free personal accident insurance. A BCP executive emphasized the importance of the salary account:

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⁶ The centralized ATM service Multi-Banco gives Portugal a tremendous advantage over other countries in being able to offer a consistent network to all banking customers within the country. However there are drawbacks in this for BCP. All ATM development plans must be channelled through an external company for developing new services. However, BCP provides additional services which helps to provide enhanced service to existing customers and helps to attract new customers. For example, BCP has contracted with a firm to refill its ATM machines on a 24hr basis every day of the week. Thus on a Saturday night, when the ATM machines of many other banks are empty, non-BCP customers can use BCP's teller machines as they are always full.
"The salary account was something completely new for Portugal and relied on some highly specific software products. NovaRede had an entire year's head start before anyone else could match it."

Group Technology Structure and Planning

The central data processing group consisted of about 200 staff members divided into four divisions: applications development; systems, communications and operations; business group performance and change management; and organizational quality assurance and help desk (see Figure 4). The General Manager of the central data processing group reported directly to the board. In addition to the centralized IT department, a certain number of IT staff were distributed in each business group.

The central applications development team was further sub-divided into several permanent project teams with each project team "responsible" for a set of major (related) software products. Each project team had a corresponding "IT Users Committee" which was headed by the general manager of a business group and comprised several business managers, front line users and some technical specialists from the associated project team. The IT Users Committee played a key role in integrating the technology staff with the users and overseeing the implementation of new projects.

Mr. Jardim Gonçalves, Chairman of the Board of BCP described the role of users in IT planning:

"At other banks, it is the data processing department that defines the information system. In BCP it's the users that decide it."

For requests needing new software to be developed, users started by filling in a one page proposal form which contained brief qualitative descriptions of the proposed change, its objectives, impact on service levels, productivity and profitability, the name of the user "owner" and a subjectively assigned priority. The business groups collected such proposals and channeled them to the IT users committees. Each IT users committee reviewed the assigned requests and determined relative priorities and redundancies among them. All conflicts were sorted out by informal meetings of the IT users committee.
members with the concerned users. After some negotiations, a list of proposed projects for the year was produced for each project team. This list was presented to the Board which gave final approval after reviewing the projects in accordance with the strategic directions of the bank.

Each IT users committee also reviewed the progress of the different projects on a regular basis. If there were any changes which called for new projects or for modifications in planned projects, the committee decided upon ways to accommodate the change requests. The entire planning process was business driven, fairly informal and flexible, and relied on a close partnership between business and IT staff in the various users committees.

**Information Management**

The effective management of both external and internal information was of high strategic importance within BCP. There were three important stores of information: the CIS, the Strategic Database and the EAS.

The CIS stored information about current and potential customers and was accessed by the account managers. The Strategic Database stored detailed customer information profiles and relevant market information. The Strategic Database was used primarily by the marketing divisions of the different business groups. Information about key internal profitability parameters was available through the EAS. Based on EAS-reported information, BCP was able to quickly obtain a very clear picture of profitability for each business area.

A dedicated central staff unit was responsible for maintaining the information content of the CIS and the Strategic Database. The Manager of this central unit explained his role:

"We maintain a clear distinction between information maintenance and technology maintenance. While the data processing department is responsible for the technical maintenance of the Strategic Database and the CIS, my unit is responsible for managing the information within them."
"We act as an interface between the users and the data processing department. When our users have a need, they come to us. We translate their needs into action requirements for the data processing department. This is easy for us as we understand the needs of our users."

A separate central staff unit was responsible for maintaining the EAS. The manager of the staff unit responsible for the EAS commented on the role of his division:

"During the initial years, the emphasis within line management was on volume. A few years ago, the focus shifted to: volume plus profitability. The EAS has been critical in enabling us to refocus our business with the modified emphasis.

We view ourselves as information providers to our users. We have to ensure that the information we provide is reliable, clear and timely. We have to decide what we want to measure, how we want to measure and have to explain these measures to the users. This is our job. It cannot be done by the data processing department."

Both of the central staff units were headed by senior business managers and each contained a small select group of technically literate business employees. BCP management clearly viewed these information maintenance units as business units and valued their role within the organization.

**Group Culture**

The bulk of the information flows in BCP were informal and rapid. BCP attached considerable importance to informal communications and motivating people. As one manager explained:

"We don't have a real organization chart. We might draw them from time to time. But we never approve one. When you approve something and then you want to change it, you have to make a decision to change it".
Cross-functional team work was valued highly within BCP since the start. Teams members were encouraged to "own" a project and often continued working on it after implementation.

With 1.2 terminals per employee, working with computers was an operational necessity for all employees in BCP. Training on computer systems formed a major part of the initial three week training given to all new employees.

Frequent and close interaction between users and technical specialists was key to maintaining a strong technological awareness within BCP. There were frequent rotations of IT staff between the central department and the business groups. The General Manager of the central data processing group commented on the job rotations:

"The IT department does lose a lot of technical people, who move to other areas of the bank. However, this reinforces mutual understanding and ensures that there are good technicians in user departments like marketing and planning."

Further, a manager had the following comment on the attitude of BCP's top management towards technology:

"The board is very aware of the strategic importance of IT to BCP. In fact, one of the board members was previously the general manager for IT. The top managers of the different business groups are also continually involved in IT decisions through the IT users committees."

**CONTINENTAL BANK**

**Background**

"In its previous existence as a full-service bank, Continental Bank was at death's door. Today, as a slimmer, sleeker incarnate, the institution is a specialized banker catering to corporations and the wealthy" (Kiely, 1992, p. 33).
In the late 1970s CB had aggressively participated in energy-related investments. When energy prices fell in the early 1980s, CB found itself with more than $1 billion in bad loans. By 1984 the bank was on the verge of collapse; it was hemorrhaging losses and facing an exodus of depositors. The gravity of the situation forced the Federal Deposit Insurance Corp. (FDIC) to bail CB out with $4.5 billion in the mid 1980s. As a result of its troubles, CB shrank from being the sixth biggest U.S. bank to the thirty third.

As the new majority owner of CB, the FDIC hired a new chairman in 1987 - former Citibank Vice Chairman Thomas Theobald. In order to resuscitate CB, Theobald made some dramatic and drastic decisions, the most important of which was to simplify CB's diversified range of business lines and refocus on the core business of corporate banking.

A major asset for CB was its large base of loyal corporate customers. CB had over 2,000 corporate customers including several publicly held companies as Chrysler Corp., Deere and Co., and Allstate Corp., major private concerns and many prosperous smaller firms. According to a recent survey (King and Lipin, 1994), CB had a significant banking relationship with 16% of the 1,000 largest corporations in the USA.

In accordance with the new strategic direction, among the first things to go was CB's retail banking operations, which made CB one of the first major banks with no retail operations. However a bigger challenge for Theobald was to catch up with changes within Corporate banking which had passed CB by while it was handicapped by the federal bailout and the ensuing tight supervisory regulations. By the late 1980s corporate customers were not content with favorable loans, but were demanding several sophisticated products such as cash management, M&A advisory services and interest rate swaps.

While the essence of CB's strategy lay on striking a balance between lending and fee-based activities with corporate customers, CB's continued survival depended upon modernizing its product inventory, tailoring products to fit its customer base, cross-selling and building strong customer relationships, being quick and nimble in effectively mobilizing bank-wide resources to satisfy customers' needs, cutting costs aggressively and removing management distractions away from the core business. Within
such a context, CB's management undertook a thorough evaluation in the second quarter of 1990 to obtain a clearer picture of how to improve the core business and outsource or dispose of all other non-core business.

By the end of the year, CB had outsourced food, security, messenger services, property services and legal services. By 1992, the company had been slimmed down to about 5,000 employees from a decade earlier high of 12,000. Richard Huber, CB's Vice Chairman commented on these spin-offs (Huber, 1993):

"While we considered ourselves nimble bankers, we had no special expertise in other areas that make up a large organization - operating cafeterias, for example, or running a law firm" (p. 122).

Theobald also believed that this restructuring not only lowered CB's overhead but also improved its ability to respond nimbly and effectively (Milligan, 1993):

"We really are selling hand-tailored suits. The customers all get something different, and the larger you are, the harder that is to do. It's as simple as that" (p. 34).

The overall direction was to make CB a more 'scalable" organization, i.e., "one that can deal with a doubling of the volume or a halving of the volume in a given product in a relatively short period of time" (Kiely, 1992, p. 33).

Management of Information Technology

"Everything the information technology unit did took too long and cost too much" (Huber, 1993, p. 123).

The management of IT was perceived to be a problem area by CB's new management team. First, the bank's legacy systems were seen as largely unable to cope with the new need for nimble and quick response to customer needs in changing business environments. The business need was to take a new idea for a product, test it, tweak it, package it, and get it out to customers. In response to this need, Theobald had initiated a move towards deal teams, i.e., a loose, cross-functional coalition of product
specialists from different areas and relationship managers. These deal teams needed consistent access to relevant information across the bank. The IT department tried to solve this problem by developing an integrated IT architecture, but their efforts were frustrated by the myriad assortments of partially compatible desktop systems and databases which had been allowed to proliferate in different parts of CB.

Second, CB had chronic staff problems. There were about 500 people in the IT unit but this number was seen as too little to do major system projects and too much for carrying out the daily operations and maintenance of the systems. There were also questions about the level of technical skills of the IT staff.

Third, there were financial constraints in continually making the huge investments required to stay on top of the technology. These constraints were particularly acute given the weak performance of the company (CB suffered a loss of $71m in 1991).

Finally, there was the distance between the IT and business staff. A lack of adequate communication between the two groups created frustrations for CB's management. Huber, who was responsible for CB's back-office and data processing operations, described his concerns in the following manner (Huber, 1993):

"The more I learned about the situation, the clearer it became that the bank was already effectively outsourcing technology services to a group of people who happened to work at the same company I did but whose work was different" (p. 123).

Theobald commented on IS awareness of business issues (Fitzgerald, 1991):

"It always fascinated me...that left to their own devices, technologists will solve internal problems....I can remember a couple of years ago when I was trying to find out the [priority list] for software development, [I noticed] one of the things we did real quick was a new system to order tickets for sporting events. Now, I'm sure it saved a nickel, but why the hell that should show up on the screen of things that are
important to the future of Continental Bank, I don't know - except it's typical."

He was also critical of the degree of involvement from the business side:

"I think it's [technology] has been overbought....We who purchase have overbought through basically our own ignorance and lack of practice, lack of involvement."

Faced with these concerns, CB's management struggled with the issue of whether they could manage IT themselves or whether it was in the bank's interest even to try to do so. Eventually, the decision was made that it was probably best to outsource IT. Though no detailed plan was prepared, it was believed by managers that outsourcing would give CB more ready access to the latest technology, cut the development time for new products and transform the bank's IT costs from fixed to variable. Competitive advantages from IT were not seen as accruing from having an internal IT division but rather from having access to the best technology at the right quality/price ratio.

**Outsourcing IT**

"The one fundamental about change that we all forget is that once you begin the process, things will be different. But it may not be what you imagined it would be."7

In March 1991, a committee of business managers was set up to analyze the risks in outsourcing IT and suggest ways to overcome them. A consulting firm was also hired to assist the committee in their "reality testing". Tom Gigerich the former CIO of CB recalled the first reaction of many of his staff to the outsourcing news (Kiely, 1992, p. 34):

"They wanted to work harder, do more. But there was nothing wrong with their performance. It was just - times changed."

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7 Former CIO John Gigerich as quoted in reference (Kiely, 1992, pp. 33). John stepped down in the final weeks of the outsourcing negotiations.
The next step was the formation of two councils to guide the bank through the outsourcing process. The business council was chaired by Huber and consisted of managers from CB's important businesses. It was responsible for strategic and business recommendations to the board of directors. The technical council consisted of selected technically knowledgeable staff from all the bank's businesses. Chaired by a credible, technically literate business manager the technical council had the mandate to conduct detailed analyses to evaluate and select vendors and make recommendations about which IT functions to outsource.

The technical council disaggregated IT into its distinct elements and examined the advantages and disadvantages of outsourcing each component. Despite some differences among members about the number of IT functions to outsource, the technical council turned in its recommendation in two months to essentially outsource all IT functions.

A call for proposals was issued and different vendors were evaluated. The major requirements on the vendor were to purchase all existing equipment, assume all responsibility for CB's hardware and software and employ CB's IT staff with comparable benefit packages. The last requirement was important not merely for altruistic reasons but also because CB's IT staff were the only ones who really knew how CB's poorly documented systems actually functioned. The emphasis was on trying to develop a strategic partnership with a reliable outside vendor.

Responses from three vendors, Andersen Consulting, Computer Sciences Corporation and ISSC (an IBM subsidiary) were evaluated against several criteria including the ability to satisfy CB's specific technological needs, career plans and security for CB's IT staff and price for a ten year contract. ISSC along with its partner Ernst & Young won after a two round bidding process. Three months of intense negotiations followed with the winners to decide on the finer details of the outsourcing process. Huber, the chair of the business council described the contract talks in the following manner (Huber, 1993):

"The bank was determined to gain much tighter management control over information technology by outsourcing. That required developing
new, stricter methods to measure and document progress, then incorporating them into contract terms and pricing" (p. 128).

The outsourcing contract was decided in September 1991 and on 1st January, 1992, CB "switched from building information technology to buying it."

Managing IT after Outsourcing

One of the first steps was to establish a management structure to ensure that CB remained in control over its technology strategy. This consisted of a technical oversight group and a twenty person team of technically literate business employees.

The technical oversight group was composed of representatives from different business units and performed the functions of balancing the technological requirements of individual business units with the entire bank, ranking IT proposals in a bank-wide priority list and deciding which projects had to be done first and which could wait. The twenty person team consisted of selected business people who understood both the business and the technology. They advised bank units on technology projects and assisted in communication with ISSC.

A year after the commencement of the outsourcing relationship, Huber made the following observations on the changed attitudes of CB's business units (Huber, 1993):

"Another obvious success is the changed behavior of the bank's business units. They are now active and disciplined participants in the IT process. With virtually all IT work on a hard-dollar, contract basis, they are devoting time on the front end of projects to define clearly and carefully their technology needs and how they want to spend their budgets... The process is more demanding now, but it's paying off in reduced technology costs and improved quality" (p. 129).

While Huber estimates that the outsourcing contract will save CB several millions of dollars each year, he also realizes that no one can truly predict
the long term cost savings (or losses) accurately. However, there is an overall feeling of increased satisfaction with IT at CB after outsourcing.

**Lessons from BCP and CB**

What kind of lessons are there for managers in these relatively mundane stories of BCP and CB? At first glance, they might seem as two disconnected tales occurring in different continents within different contexts; but on a closer analysis they hold some simple but powerful insights for managers.

BCP is by most accounts the most successful story in European banking within the last decade. It is also an organization which has been very successful in aligning IT with its business. A clear proof of this is the rapid stream of technologically enabled innovations (Figure 3) that it has successfully unleashed in the Portuguese banking market. Not only have these innovations formed the cornerstone for BCP's strategic success, but they have also given it an unassailable competitive advantage as none of BCP's competitors have been able to match them. More important, BCP is one of the few organizations where business managers appreciate IT, feel comfortable with managing IT and in general, have a positive attitude towards IT.

What contributes to the alignment of IT with BCP's business? Several simple aspects stand out, one of them being the high level of participation and involvement of the business in the management of IT. This is evident all the way from the board down to the front-line staff of BCP. There is a high level of awareness about IT issues within the board and the board does not hesitate to make important decisions related to IT. A good example of this is the decision of the board to go with the risky but expensive mainframe rather than the less risky mini-computer solution (which incidentally was favored by the IT staff).

Top business managers chair the different IT users committees and spend an appreciable part of their diary time being involved in managing IT. Recall that each IT users committee consists of both technical specialists and a variety of business users ranging from front-line staff to senior managers. The IT users committees decide priorities among IT projects, oversee the progress of IT projects and decide upon late changes to projects (change
control). Any problems are smoothed out by negotiations between the users committees and the concerned business users/managers. These functions of the IT users committees are very important as major problems in the alignment of IT arise when priorities are decided by IT staff and current projects are not changed adequately in response to changing business conditions and requirements. Note that there is a subtle but important difference in letting either the business or the IT staff manage these functions. With the IT users committees, it is the business which is negotiating tradeoffs in IT planning with the business (users). The effect and the impact are not the same when IT staff negotiate the same tradeoffs with the users.

The high level of awareness about IT issues at all levels within BCP is enhanced by frequent rotations of the IT staff within the different business units. Not only are some IT technical staff resident in the different business units, but IT staff are also moved into business management positions once they reach the project manager level within the IT division. All incoming staff are trained in the use of IT systems and the relation between BCP's IT systems and its business capabilities.

BCP has also been quite effective in separating information maintenance from technology maintenance. In most organizations, the IT department is responsible for both the technology of the IT systems and for the information contained within them. This often creates communications problems between the business users and the technical specialists. The dedicated staff units within BCP contain a select group of hybrid staff - people who have both business and technical skills - who help users understand what they really require and translate their needs into viable and unambiguous requests for the IT department. What makes these dedicated staff units special within BCP is the value the business assigns to them. Senior business managers head these units and the function is perceived to be of special importance within BCP.

In contrast to BCP, CB's predicament with IT prior to outsourcing represents an all too common situation in organizations. The alignment of IT with the business was poor as evidenced by the lack of the IT department's ability to respond to the business demands for nimbleness and speed of response. CB's management was having serious problems in managing IT and
directing IT priorities. The IT department was perceived to be a "separate" part of the bank and the IT staff were seen lacking in business awareness. Business managers were not involved in managing IT and there was a widespread perception that not only was the management of IT an unsolvable problem but perhaps it was "probably not in the bank's interests even to try" (Huber, 1993, p. 123).

After outsourcing IT, CB's management seems to be more satisfied with IT and it is well worth understanding why this is the case. Note that the (ISSC) staff providing the IT functions for CB are largely the same people who were employees of CB prior to outsourcing (as they were hired by ISSC as part of the outsourcing deal). While it is true that these staff have more access to technological resources within ISSC and are getting used to operating within a different culture, they probably have not changed dramatically overnight just by changing employers. If anything, many of CB's erstwhile IT staff were unhappy at having been moved out of the bank. So it would not be too unreasonable to rule out changes (in either skills or motivation) within the technical staff as the major source of the newfound satisfaction with IT within CB's management.

The other big change at CB after outsourcing is the creation of the new management structures comprising the technical oversight group and the twenty person team of hybrid employees to coordinate with the outsourcing vendor. These management structures are actually making CB managers take a more active role in deciding IT priorities and shaping the technology strategy of the bank. If we compare the functions performed by CB's new management structures with BCP's IT users committees and dedicated staff units responsible for information maintenance, we note obvious similarities. CB's management is trying to do what BCP has really done very well thus far - get the management of IT diffused throughout management and the business. The lesson here is simple but vital: you can outsource IT but you cannot outsource the management of IT. It would not be unreasonable to conclude that the participation and involvement of CB's management in controlling and shaping IT is a major factor in the bank management's newfound satisfaction with IT after outsourcing.

This brings us to the next important question: why did CB's management not create the same management structures for managing IT before, i.e., while IT
was inhouse? The answer to this question is complex, but represents the heart of the problem in most organizations struggling to align IT with the business. As acknowledged by Theobald, the CEO of CB (see earlier quote), CB's management was just not involved in managing IT. Theobald was surprised in seeing a system for ordering sporting tickets developed rapidly, but the interesting question here is how could the system be developed in the first place? Why was the business not controlling IT priorities and setting direction?

Left to itself it is not too uncommon to see IT departments set priorities based on internal constraints which do not always correspond with business needs. This does not happen at BCP where the business users truly lead IT planning and participate actively in the process from setting priorities to controlling changes during the execution of projects. What differentiates BCP and CB (prior to outsourcing) is simply this: the will of senior management to participate on a regular basis and get involved in the management of IT. BCP's management has been doing this quite well for some years. CB's management has been forced into taking a more proactive participatory role in managing IT partly by the shock of paying "hard-dollars" for the outsourced IT and partly by the discontinuous change represented by the outsourcing deal.

**COMPARISONS WITH PRIOR RESEARCH**

As BCP and CB represent two data points in organizational approaches to managing and aligning IT with the business, it is useful to compare the lessons and insights from their experiences with prior research.

It is hardly possible to list a survey of critical success factors for MIS8 within organizations in which the issue of aligning IT with the business is not mentioned. Different researchers (Dickson et. al., 1983; Hartog and Herbert, 1986; Branchseau and Wetherbe, 1987) and practitioners (Tomlin, 1990; Schlack, 1993; Moad, 1994) have repeatedly identified the alignment of IT with the business as one of the top few determinants of MIS success.

Consequently, several researchers have attempted to identify, formalize and empirically test different techniques and approaches for achieving an

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8 The acronyms "IT" and "MIS" are used interchangeably in this paper.
alignment between IT and the business. Much of the research in this area has focused on studying the participation and involvement of (a) users in the IT development process and (b) general managers in the IT management process.

In 1984, Ives and Olson noted in one of the first substantive reviews of the inter-relationships between user involvement and MIS success that while "it is almost an axiom of the MIS literature that user involvement is a necessary condition for successful development of computer-based information systems" (p. 586), the benefits of user participation had not been strongly demonstrated in the literature till then. The terms participation and involvement had been used rather interchangeably in the MIS literature till recently when Barki and Hartwick (1989) argued for explicitly distinguishing between them. According to them, involvement is a subjective psychological state while participation refers to actual activities performed. Hartwick and Barki (1994) in more recent and systematic research on the topic have noted that the key dimension of user participation is overall responsibility for MIS development and that increased participation in MIS related activities leads to a greater sense of involvement.

The importance of general management participation and involvement in IT has been stressed for a long time. About two decades ago, Adams (1972) claimed that "the successful implementation of an MIS depends on the active and informed participation of executive management" (p. 54) and Swanson (1974) wrote "that management should be 'involved' in MIS development is a popular wisdom" (p. 178). More recently, several other authors have also reiterated such a stance. For example, Nath (1989) noted in his survey that for both senior general managers and MIS managers "upper management commitment is deemed critical" (p. 71) for aligning MIS with their organization's goals. Doll (1985) mentioned that "top management's involvement may be a critical factor in determining the success of MIS" (p. 17). Jarvenpaa and Ives (1991) found from a survey of fifty five CEOs that those CEOs who participated in the management of IT were more involved in it and that this in turn led to their firm being more progressive in the use of IT.

To summarize, a clear message from prior research is that participation and involvement of the users and senior general managers in IT planning and
management is beneficial for aligning IT with the business. This message is consistent with the experiences of BCP and CB. Within BCP, users lead and define the MIS development process and general managers actively participate in IT management. This leads to a greater involvement of the business in IT planning and management. In contrast, prior to outsourcing IT, CB's management kept their distance from IT management and did not either participate or get involved in IT management. This frustrated CB's managers and led to a distanced, non-aligned IT. Such a conclusion is also corroborated by Doll (1985) who found that "when top management and MIS management discussed and reached agreement on development priorities, the information systems area was viewed by both parties as more a part of the business" (p. 22-23).

Prior research in user/manager participation and involvement has not considered the situation of outsourced IT. CB's experience after outsourcing IT is therefore quite interesting. Note that CB's management and business staff are participating more in IT planning and direction setting through the newly set up management structures and processes after outsourcing IT. Prior research by Hartwick and Barki (1994) and Jarvenpaa and Ives (1991) has shown that increased participation leads to increased involvement. This increased involvement is evident in the comments (quoted earlier) on the general feelings of CB's management on IT alignment after outsourcing. Though we lack direct evidence, it is conceivable to project Jarvenpaa and Ives' (1991) findings and hypothesize that this increased involvement is eventually leading to a more progressive use of IT by CB.

Thus, it can be hypothesized that the research conclusions from the literature on management participation and involvement are also applicable to organizations which have outsourced IT. If anything, the need for participation and involvement from managers and users might be higher in organizations with outsourced IT. This is due to the lack of internal IT groups who in many firms shoulder the responsibility of ensuring the alignment of IT with the business. While such hypotheses need to be tested empirically with a larger sample, they are in direct conflict with commonly held notions regarding outsourcing such as "outsourcing takes over all information systems functions, much the way an outside company would manage food service or laundry" (Gardner, 1991, p. 35). Interestingly, the issue of management participation and involvement after outsourcing is also not
addressed explicitly in recent research on outsourcing (Lacity and Hirschheim, 1993a; Lacity and Hirschheim, 1993b).

While there is consensus among researchers and practitioners on the importance of the business participating in and getting involved in IT management, many companies find themselves in the situation CB was prior to outsourcing: business managers do not consider IT to be an area in which they needed to get involved in personally. Such problems have been documented in the literature. Jarvenpaa and Ives (1991) mention that "few nostrums have been prescribed so religiously and ignored as regularly as executive support in the development and implementation of management information systems" (p. 205). Lederer and Mendelow (1988) note that their research has shown that "top management still needs to be convinced of the potential strategic impact of information systems" (p. 525).

An interesting question in this regard is that why does management not participate willingly and proactively in IT management? Lederer and Mendelow (1988) attribute this to the fact that top management often lacks awareness of the potential of IT, or takes a traditional operational view of computing, or lacks adequate faith in their MIS staff or does not view information as a resource to be managed. Age and familiarity with computing are also mentioned often (Jarvenpaa and Ives, 1991) as factors relevant for determining the degree of executive participation and involvement.

It is true that BCP's management and staff are on the average relatively young and computer literate and thus their participative role in IT management is in congruence with prior research. But what about CB's management? The same group of managers moved from a passive to a more participative and involved role after outsourcing. There is little evidence to believe that they acquired new skills or increased familiarity with IT rapidly to make this transition. The answer probably lies simply in their will and desire to participate in and get involved in the management of IT. As long as CB's management treated IT as someone else's (i.e., the inhouse IT department's) management problem, IT was a problem orphan for the bank. When forced by the hard-dollar outsourcing contract and the lack of an inhouse IT department to delegate IT management to, CB's management
started taking a more participatory role in IT management with positive results.

Thus one can question whether issues like age and lack of familiarity with technology are anything but excuses for executives to be not involved in managing IT. No one expects general business managers to be masters of technology, and they do not need to be so to effectively align IT with their businesses. They need to manage information, not technology. BCP has explicitly focused on this by separating information maintenance from technology maintenance and making the business responsible for information maintenance. CB has just started doing this via the newly setup group of 20 technically literate business people.

If we take an overall view of BCP’s approach to aligning IT with its business, it is similar to Earl’s (1993) organizational approach to strategic information systems planning. Earl characterizes the organizational approach as being based on IT decisions being made through continuous integration between the IT function and the organization. The emphasis is on management understanding and involvement which makes IT planning and management neither special nor abnormal, but simply a part of the normal business planning of the organization. IT strategies and actions are seen as emerging not from a formal method but from ongoing organizational activities such as trial and error changes to business practices and continuous and incremental enhancement of existing applications. BCP’s informal communication culture, emphasis on cross-functional teams, close interactions between IT and business managers, ease of creating proposals for new systems (recall the one page proposal form) and lack of emphasis on formal quantification of returns from IT systems attest to such a flexible, interactive organizational approach to linking IT with the business.

From his research, Earl (1993) concludes that the organizational approach seems to be more effective than other approaches. Though such an approach appears to be very effective within BCP, we cannot conclude from the examples of BCP and CB whether this is universally true. Certainly this question needs to be researched further.
CONCLUSIONS

This paper has described how two banks, BCP and CB, each tackle the problem of aligning IT with their individual businesses. Keeping IT inhouse, BCP has successfully aligned IT with its business to unleash a rapid stream of technology-enabled innovations which has catapulted it from a small startup bank to the verge of becoming the biggest bank in Portugal, all within less than decade. CB has chosen the opposite route as it has moved from a federal bailout to a focused, profitable operation. Faced with a chronic IT management problem, it became one of the first banks to completely outsource its IT. Despite the apparent divergence of the IT management options chosen by these two banks, there are some important messages for managers in their experiences:

• Business managers can outsource IT but they cannot outsource the management of IT;

• The management of IT and its alignment of IT is and will continue to be a business responsibility, regardless of whether IT is managed inhouse or is outsourced;

• Different organizations may choose different mechanisms and structures for aligning IT with the business, but they will all require the active participation and involvement of business users and managers in the IT planning process and an explicit focus on information maintenance by the business;

• Age and lack of familiarity with technology are poor excuses for getting involved with IT management. Business managers can participate and be involved in IT planning and management if they have the will and the desire to do so.

• The alignment of IT with the business will be a problem for business managers as long as they it to be the sole responsibility of the IT department.

• Distance between IT and business staff eventually translates into a non-aligned IT. Close interactions between the two builds mutual appreciation and leads to a desirable alignment of IT with the business.
The comparative study presented in this paper has also raised some interesting questions:

- Are prior research results on user/manager participation and involvement in IT planning valid in an organization with outsourced IT? If there are differences, what kind of differences exist?

- If age and lack of familiarity with technology are weak excuses for not being involved in managing IT, then what are the reasons for business managers abdicating their responsibility for participating and being involved in IT planning? What can be done to overcome these hurdles?

While the data points presented in this paper are limited to two example banks, the issues illustrated are representative of all firms. It is hoped that this paper provides some useful insights on aligning IT with the business for organizations.
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Moynihan, T., What Chief Executives and Senior Managers want from their IT Departments, MIS Quarterly (14:1), March 1990, pp. 15-25.

Nath, R., Aligning MIS with the Business Goals, Information and Management (16), 1989, pp. 71-79.


In less than 5 years, BCP has clearly outpaced the 2 other Portuguese commercial banks, which appeared in 1985 (BCI and BIC), and joined the group of Portugal's largest commercial banks (note that BPI merged with another local bank in 1991).

Legend:

BPA  Banco Português do Atlântico  
BTA  Banco Totta e Açores  
BPI  Banco Português de Investimento  
BIC  Banco Internacional de Crédito

BESCL  Banco Espírito Santo & Comercial d'Lisboa  
BPSM  Banco Pinto e Sotto Mayor  
BCI  Banco de Comércio e Indústria

Source: (de Pommes et. al., 1993)
Figure 2: Development of BCP's Banking Operation

<table>
<thead>
<tr>
<th>Operation</th>
<th>Main Phase</th>
<th>Target Clients</th>
<th>Products &amp; Services</th>
<th>Operating Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCP Parent Group</td>
<td>1988-1989</td>
<td>High Net Worth Individuals</td>
<td>• Cash management Products (e.g. Conta Más,)</td>
<td>• Autonomous branch network</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Mortgage credit</td>
<td>• Decentralised back-office</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Personal loans</td>
<td>• Global range of flexible financial services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Prestige credit cards</td>
<td>• Account Managers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Package of insurance</td>
<td>• Personalised treatment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medium-sized corporations</td>
<td>• Cash management Products</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Short term capital financing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Treasury accounts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Investment accounts</td>
<td></td>
</tr>
<tr>
<td>Corporate banking</td>
<td>1989-1991</td>
<td>Portugal's top 500 corporations</td>
<td>• Off shore financing &amp; Cash management</td>
<td>• Cross-selling to insurance and leasing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Swaps</td>
<td>• Corporate terminal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Loan syndication</td>
<td>• Risk assessment system</td>
</tr>
<tr>
<td>Private banking</td>
<td>1989-1991</td>
<td>Extremely wealthy customers</td>
<td>• Investment products</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Mutual funds</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Insurance products</td>
<td></td>
</tr>
<tr>
<td>NovaRede</td>
<td>1989-1993</td>
<td>Urban Retail Customers</td>
<td>• NovaRede account</td>
<td>• Fast service, low costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• NovaConta salary account</td>
<td>• Low cost branch operations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Funds transfer</td>
<td>• Monthly combined statements</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• NovaRede Visa credit card</td>
<td>• Automatic cheque dispensing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Insurance products</td>
<td>• &quot;Direct Hotline&quot; phone banking</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Credit scoring techniques</td>
</tr>
<tr>
<td>Merchant banking</td>
<td>Acquired 1990</td>
<td>CISF</td>
<td>• Medium &amp; long term Financing</td>
<td>• Complementary business</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Valuations and M&amp;A activities</td>
<td>• Separate computing systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Privatisations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Capital market business</td>
<td></td>
</tr>
<tr>
<td>International</td>
<td>June 1991-1993</td>
<td>Portuguese émigrés in France</td>
<td>• Retail banking facilities</td>
<td>• Joint venture with Spain's Banco Popular</td>
</tr>
<tr>
<td>Small business</td>
<td>Mar 1992-1994</td>
<td>Small Business</td>
<td>• Hire purchase-type financing</td>
<td>• Specialised credit scoring</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Cheque management service</td>
<td>• Revolving line of credit</td>
</tr>
</tbody>
</table>

Source: (de Pommes et. al., 1993)
<table>
<thead>
<tr>
<th>Product</th>
<th>Category</th>
<th>Description</th>
<th>Date</th>
<th>Competitive Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Managers</td>
<td>New service</td>
<td>Personal service</td>
<td>May 1986</td>
<td>1990 Barclays, 1991 BCI(Santander)</td>
</tr>
<tr>
<td>Nova Conta Mas</td>
<td>New product</td>
<td>High yield bank account</td>
<td>Late 1986</td>
<td>1990 Barclays, 1991 BCI(Santander)</td>
</tr>
<tr>
<td>Prestige Débico</td>
<td>New product</td>
<td>Visa premier gold debit card (first gold debit card in Portugal)</td>
<td>Late 1986</td>
<td>BCI launched gold card 1987</td>
</tr>
<tr>
<td>Conta Fitulos</td>
<td>New service</td>
<td>A more flexible securities account. Supported in BCP central system, it allows any customer access to the Stock exchange at branch level.</td>
<td>May 1986</td>
<td>No one followed</td>
</tr>
<tr>
<td>Direct Marketing</td>
<td>New concept</td>
<td>BCP introduced direct marketing methods such as telemarketing and mailing. The first in the Portuguese banking industry.</td>
<td>May 1986</td>
<td>Others followed late 1988</td>
</tr>
<tr>
<td>Market Segmentation</td>
<td>New concept</td>
<td>BCP specified the product and service level for each of the tightly defined segments.</td>
<td>May 1986</td>
<td>1990 Barclays and 1991 BCI. Others developed products aimed at special market segments. BCP still remains the only bank to follow a full market segmentation strategy. Others have slowly developed a financial group.</td>
</tr>
<tr>
<td>Financial Group</td>
<td>New concept</td>
<td>In order to serve each customer's global financial needs, BCP established a group to co-ordinate such aspects as insurance, leasing, factoring, etc.</td>
<td>1987</td>
<td></td>
</tr>
<tr>
<td>Tradelink</td>
<td>New product</td>
<td>An information service to business around the world.</td>
<td>1986</td>
<td>A year later BESCL launched a similar product</td>
</tr>
<tr>
<td>Commercial Bonds</td>
<td>New product</td>
<td>Innovative short/medium term bonds for medium size companies.</td>
<td>Late 1988</td>
<td>No one followed</td>
</tr>
<tr>
<td>Madeira &quot;Off-Shore&quot; Branch</td>
<td>New concept</td>
<td>Taking advantage of tax and operating conditions in Madeira's financial &quot;off-shore&quot; status.</td>
<td>Jan 1989</td>
<td>Others followed in late 1989</td>
</tr>
<tr>
<td>Monthly Income Account</td>
<td>New product</td>
<td>A new financial product combining a high interest rate with flexibility of withdrawal and the payment of monthly income.</td>
<td>Mid 1989</td>
<td>Others followed a year later</td>
</tr>
</tbody>
</table>
Figure 3 (continued): BCP Main Innovations

<table>
<thead>
<tr>
<th>Product</th>
<th>Category</th>
<th>Description</th>
<th>Date</th>
<th>Competitive response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prestige Crédito</td>
<td>New Product</td>
<td>Visa Premier (gold) credit card. First ever gold credit card issued in Portugal.</td>
<td>Mid 1989</td>
<td>Barclays launched a gold credit card in 1991</td>
</tr>
<tr>
<td>Short term bonds</td>
<td>New product</td>
<td>Securities issued by medium size companies at very competitive interest rates with 1 year maturity.</td>
<td>Late 1989</td>
<td>BPSM followed 2/3 months later</td>
</tr>
<tr>
<td>NovaRede distribution Network</td>
<td>New concept</td>
<td>Small branches with reduced staff (5 maximum), automated and close to customers, ATM and CAT in all 200 branches (end 91).</td>
<td>Nov 1989</td>
<td>Other banks opened a few branches of that same size afterwards</td>
</tr>
<tr>
<td>Salary Account</td>
<td>New product</td>
<td>An account based on automatic transfer of monthly salary, enabling early payment of salary from the 15th, an automatic credit line, and free accident insurance.</td>
<td>Nov 1989</td>
<td>Other's followed in 90/91 with similar products</td>
</tr>
<tr>
<td>Hot-line</td>
<td>New service</td>
<td>A telephone service through which clients may place orders, or request information.</td>
<td>Nov 1989</td>
<td>BPA launched a hot-line in late 90. Barclays and BFB in 1992</td>
</tr>
<tr>
<td>Monthly combined statement</td>
<td>New service</td>
<td>A document which summarises all financial transactions, and states all the client's assets.</td>
<td>Nov 1989</td>
<td>No other bank offers such a complete service</td>
</tr>
<tr>
<td>Mortgage Credit</td>
<td>New product</td>
<td>BCP moved into an area that was an &quot;exclusive&quot; of special credit institutions.</td>
<td>1990</td>
<td>Others followed in the same year</td>
</tr>
<tr>
<td>ADR Program</td>
<td>New concept</td>
<td>BCP was the first Portuguese company to have their share capital listed in a foreign market.</td>
<td>Aug 1990</td>
<td>No other Portuguese bank is listed outside Portugal</td>
</tr>
<tr>
<td>Sponsoring TV show</td>
<td>New concept</td>
<td>Sponsoring a popular TV show.</td>
<td>Oct 1990</td>
<td>Others followed in 1992 (BESCL, BFB, etc.)</td>
</tr>
<tr>
<td>Personal credit</td>
<td>New product</td>
<td>BCP launched credit facilities for individuals just after the removal of legal restrictions.</td>
<td>1991</td>
<td>Other followed with 4/5 months lag</td>
</tr>
<tr>
<td>Managing pre-dated cheques</td>
<td>New product</td>
<td>A product designed to manage pre-dated checks for small businesses.</td>
<td>Apr 1992</td>
<td>No other bank offers such a comprehensive product</td>
</tr>
<tr>
<td>Credit based on pre-dated cheques</td>
<td>New product</td>
<td>A credit line based on accounts receivable (as pre-dated checks) held by small businesses.</td>
<td>Apr 1992</td>
<td>No other bank offers such a comprehensive product</td>
</tr>
</tbody>
</table>

BCP main competitors became increasingly good at imitating BCP innovations; however, no one bank could follow all of BCP new product introductions.

BCP also adopted a policy of "zero-interaction" with other banks in Portugal [for instance on the inter banking network system, SIBS]. This was done in order to reduce the amount of competitive information that was "leaked-out" from BCP.

Source: (de Pommes et. al., 1993)
Figure 4: Organization of the Data Processing Department

BCP's DP Department is organized into 4 areas, as depicted below:

- **Applications Development.** This group is responsible for selecting or developing application packages to match user requirements. This group is further sub-divided into different project teams. Each project team has a corresponding IT Users Committee which consists of some technical staff from the project team, business group senior managers and line staff.

- **Systems, Communications and Operations.** This group is concerned with the operations of the computer systems, networks and 'production' activities.

- **BCP-Group Performance and Change Management.** This is a support group, responsible for coordinating changes in BCP's technology infrastructure.

- **Organization, Quality Assurance and Help Desk.** Activities managed by this group include: accounting systems; analyzing the performance of systems; quality assurance; change management i.e. controlling software changes; and a help desk.