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Case Study: Australian Bank's IT-Business Alignment Leads to New Product and System Development Process

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Redundant and aging legacy systems hampered BT Financial Group's (BT's) ability to bring to market a new retirement savings account. The bank created a cross-organizational project team that incorporated new design processes, new development tools and reusable technology components, which facilitated a successful product launch.

Key Findings

- Superannuation accounts are a strategic business opportunity for the Westpac Group. However, five overlapping legacy systems to support BT's and Westpac's products were a huge drain on organizational resources.
- BT took a novel approach to the project in terms of team structure, product and application development methods, and technology infrastructure.
- Inclusion of all stakeholders, including end users, provided the leverage to achieve substantial changes in product, process and organizational dynamics.

Recommendations

IT leaders at banks and investment firms:

- To make fundamental changes in IT-business relationships, involve high-level champions from IT and the business throughout your technology projects.
- Implement consistent, business-focused metrics to measure project resource requirements and progress. Conduct regular status checks during the development, and negotiate project changes using the same metrics throughout the project.
- Ensure that you understand the business drivers and issues of internal clients and end users (that is, bank customers). This will help you to better meet all needs, as well as give you a stronger basis for urging changes in the business processes that will make the IT work more productive.

WHAT YOU NEED TO KNOW

Building an IT-business project team that collaborates to develop consistent methods, metrics and processes will help you introduce technology changes and new products more efficiently and cost-effectively. Such an approach will also enable new ways of working together that will add value to the company beyond the initial project.

CASE STUDY

Introduction

Like many financial firms across the globe, Westpac Banking has grown through mergers and acquisitions (M&As), having global assets of $375 billion and some 28,000 employees. This has resulted in an IT environment of "siloed" systems and products that rely on older, often proprietary software and that are tied to single products and lines of business (LOBs).

"Superannuation" (or "super") is a term used in Australia and New Zealand to describe a set of private pension plans, and it is a key retail product for Westpac. Super was traditionally a defined-benefit pension plan available at the employer's discretion. However, with the Superannuation Guarantee (Administration) Act of 1992, Australia made super compulsory. Employers were required to contribute to employees' super accounts, and employees were given the ability to contribute on a tax-advantaged basis. These accounts are similar to 401(k) plans and Individual Retirement Accounts (IRAs) in the U.S., Self-Invested Personal Pensions (SIPPs) in the U.K. and Registered Pension Plans (RPPs) in Canada, although the compulsory employer contribution is unique to each country.

Changes in superannuation laws and regulations, particularly the introduction of choice and portability legislation in 2004 and 2005 — which enabled employees to move super assets among financial firms — required BT and other firms to regularly revise the IT applications used to handle these accounts. These new aspects of super, combined with business and social trends, led BT and Westpac to expect a huge growth in super accounts, but also increased competition.

The Challenge

Across its business units, BT ran five separate superannuation systems, primarily as a result of the M&A activity. Four systems were developed in-house, and one system, a packaged application, was heavily customized. Legislative changes made compliance costly, because each change had to be incorporated across the systems; upgrades required similar duplication efforts.

Some systems were built in older application environments and made little or no use of straight-through processing (STP) to improve efficiency and customer responsiveness. Manual processes slowed transactions, especially at the end of quarters because of report and statement production. Legacy systems also had limited online self-service capabilities.

Against this background, BT's business side saw the opportunity to leverage the changes in super during its annual strategic planning process by offering a new product called BT Super for Life. BT Super for Life aimed to be a pure online, self-service superannuation product that was built to leverage the increased flexibility via portability and choice afforded to Australians.

BT senior management in the business and IT organizations knew that building this new product required a different approach to product and system design and demanded the collaboration of business and IT. In addition, the project would enable other super products to be moved to the new technology platform over time.

Approach

A new approach to build the BT Super for Life product grew out of a high-level business and IT alignment initiative during the bank's strategic planning efforts. Through interactions at senior levels, the business units understood that maintaining multiple redundant legacy systems across products impaired the systems' responsiveness and created margin pressures. Moreover, older systems didn't scale well and limited growth opportunities. For the new product, the business acknowledged that it couldn't develop a new, purely online product by modifying existing systems.

At the same time, IT's strategic planning led to a focus on rationalizing the overall enterprise system portfolio and infrastructure, including a concerted push to eliminate manual activities and enhance STP. Moreover, the bank's CIO sought to move the IT organization from simply providing ongoing support to promoting business enablement. The CIO saw the BT Super for Life project as a catalyst to deliver on this goal.

The project used new methods in three critical areas: 1) the application development (AD) process; 2) the technical architecture of the new system; and 3) achievement of customer centricity.

Application Development Process

Like most IT organizations, BT's dominant method for project planning was a form of the traditional waterfall software development. Waterfall methods have the following characteristics:

- Are project-based
- Focus on beginning, middle and end steps
- Are carefully estimated in the amount of time and human and financial resources
- Are generally based on IT-oriented rather than business-oriented measures of success or failure

Because of the more fluid nature of the superannuation initiative, waterfall development was not an ideal approach. Instead, the BT Super for Life project used an agile development process — a product development method with critical differences from traditional IT efforts (see "Adopt Participative Management to Navigate in a Flat World"). The differences include:

- Involvement of the business team throughout the project
- Lack of strict task sequencing, with activities happening simultaneously
- Iterations of development in short time cycles measured in days or weeks
- Success measured by the benefit delivered to the business

(For a more thorough description of waterfall and agile development methods and processes, see "Waterfalls, Products and Projects: A Primer to Software Development Methods.")

BT retained an external consulting group, ThoughtWorks, to guide it through the implementation of agile development methods. Business staffers were involved in the project throughout the development and launch activities, and project showcases were held twice a month with senior business and IT managers to demonstrate progress and status. An agile design with prototyping and revisions was used to industrialize the process for IT, and to ensure alignment to the needs of the business units and end customers. An outside firm, HCL Technologies, was leveraged to enhance the testing processes.

System Architecture

BT Super for Life was built using service-oriented architecture (SOA), Web services and IBM's portal technology. These elements are part of BT building systems that emphasize components and reuse. All customer accounts were integrated through a Tibco enterprise service bus to other banking systems and via an administrative platform provided by InfoComp. This was needed because the BT Super for Life product linked to other customer accounts for viewing and fund transfers, so connectivity to other banks' systems was essential.

Portal technology provided for portlets and screen element reuse across online and call center channels with little redevelopment. If user needs or business activity required screen changes, portal technology allowed the rearranging of standardized elements rather than having to do a complete rebuilding (see "Leveraging Portal Technology in Wealth Management").

The design focus on standardization and reuse was also key to the conversion of the older super systems. Even though the focus of the project design was the BT Super for Life product, the bank's aim was to build a robust framework to enable the migration of the remaining products to a consistent technology once the new product was complete. Use of SOA meant that banking business functions — such as "create customer" or "create account" — are now available for reuse in products outside the super LOBs (see "Leveraging SOA in Wealth Management Deployments").

Achievement of Customer Centricity

Many IT organizations find it difficult to meet the needs of their own enterprise clients (see "Financial Services IT Must Learn to Think Outside the IT Box"). However, especially in financial services, the central role of IT in the business means that the IT organization must focus on user needs.

This project took user-oriented development to the ultimate step, by focusing on the needs of the end user — Australian banking customers who must set up and manage their super accounts. BT emphasized a customer-centric design process throughout the development life cycle and hired a customer design consultant in Australia, Different, to work with the project team. To best understand user needs, the team established user labs and adopted a "follow home" approach, in which customers were observed managing the paperwork and other activities in their normal environments. The insights gained from these efforts were incorporated into the design process for systems, functions and screen layout. This customer-centric approach was a cultural change for the IT organization and is now being used more widely (see "New Ways of Assessing Consumer Centricity in Health Insurance").

Results

- BT Super for Life product was introduced in October 2007, after approximately 18 months in development. It won the 2007/08 Best New Product category in SuperRatings' Fund of the Year Awards sponsored by an independent firm that produces investment fund ratings in Australia. It has also won favorable press coverage for low cost, ease of use and being the first super product to provide direct linkage to other bank accounts.
- The project continues to provide benefits to the bank in renewals of other super products and examples of how IT and LOBs work together. Full conversion of the remaining super products will be achieved by 2012. To minimize risk, future conversions will be done sequentially, with early stages of one conversion overlapping in time with later stages of other conversions.

- The use of agile development methods and the focus on customer needs are being expanded to other products. For example, the customer-oriented design is being added to system development efforts in financial planning and wealth management services.

Critical Success Factors

Organizational dynamics and the new development approach were critical to the successful rollout of the BT Super for Life product.

Organization Dynamics

- The project was pulled together outside of the core business line with the general manager of marketing stepping aside from his day-to-day responsibilities to act as a full-time executive project sponsor. He and the CIO, along with the design consultant, took part in the twice-a-month showcases. Project issues were dealt with quickly and through negotiated agreement. This ensured that the project stayed on track and that systems worked as expected (or could be revised and prioritized without unnecessary delay).

- Regular showcases also ensured that all involved parties had visibility as to where they were in the project. When there was a need to narrow the project scope or change parameters, a process was available to reach agreement on solutions. As a result, miscommunication was greatly reduced.

- The head of the BT advice technology IT group, who was also a senior IT member of the project team, stated that the coordination and teamwork of business and IT were "incredible," unlike anything he had seen before. Combining this business-IT alignment with a customer-centric design process was "very motivating and engaging."

Development Process

- Agile development and related tools were key elements to manage the project and cultivate a common perspective across the team. Rather than using traditional IT metrics (such as lines of code or full-time equivalent hours), project tasks were assigned a point value under the ThoughtWorks methodology. By establishing a common currency for the business and IT team members, negotiations could assess product wants versus needs and facilitate trade-offs.

- The point system was also used to determine how to adjust functions when constraints arose. For example, the complexity of development efforts for specific features, such as on-screen complexity, could be mapped in points and matched against other activities to prioritize efforts and to place value on a given feature or function in the context of required trade-offs.

- In contrast to the traditional design philosophy, the project was not fully complete when launched; 90 days were needed to catch up on remaining function requirements. However, because the business and IT units were working together and had consistent metrics, prioritization of delays met the needs of both groups and end users, such as end-of-quarter reporting functions that were not needed for several months.

Lessons Learned

- By making several enhancements at one time — to products, design processes and working style — the IT organization had to juggle multiple challenges. Because the team and its activities did not work in isolation, these efforts did conflict with other parts of IT that were still using the traditional waterfall design. This potential for friction was not

addressed in the initial project planning. Project teams must keep the larger IT organization informed.

- The team didn't fully understand the resource- and time-intensive iterative aspects of customer-centric design. Because of the user labs and other customer testing, a rework of functioning aspects of the product was still necessary. This created a resource gap, which contributed to the limited functionality at the time of rollout. Teams must build some room into the requirements to address this resource gap.
- Product requirements and design had to be iterative for the business unit and required flexibility. Because the head of the superannuation LOB was active in product design, there was a willingness to change business processes to keep on track. Moreover, consistent metrics help the LOB make rational choices to avoid overcustomizing the product.
- Business-IT alignment and agile development require an expanded set of IT skills — business savvy and good communication ability, for example — that are not part of the traditional IT candidate assessment. BT and Westpac are determining how IT must change to make these approaches more robust and enable use across the larger organization.

RECOMMENDED READING

"Waterfalls, Products and Projects: A Primer to Software Development Methods"

"Leveraging SOA in Wealth Management Deployments"

"Leveraging Portal Technology in Wealth Management"

"Financial Services IT Must Learn to Think Outside the IT Box"

"New Ways of Assessing Consumer Centricity in Health Insurance"

"Adopt Participative Management to Navigate in a Flat World"

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