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**Turnaround at Aetna:
The IT Factor**

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Title: Turnaround at Aetna:
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Abstract: In 2005 Aetna, a leading health insurance company, completed a dramatic business turnaround of five years under new top management leadership. The case describes the role of IT in the business and the leadership of a significant change in responsibility and capability for delivering IT. In particular, the personal involvement and commitment of key top executives resulted in changes in governance with the business taking ownership of systems development and IT use, and in continuing long-term infrastructure development.

Keywords: IT in business turnaround, IT governance, IT in strategy, IT in healthcare, business leadership for IT.

6 Pages



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**Turnaround at Aetna:
The IT Factor**

In 2005, Aetna, one of the nation's most profitable health insurance companies, completed a dramatic business turnaround. Industry observers, analysts, and stakeholders such as employers, members, doctors and patients, generally highly critical of Aetna for its practices and performance in 2001, were almost universal in their praise by 2005.¹

The financials told the outcome. Aetna went from a net loss of \$279.6 million in 2001 to net income of \$1.63 billion in 2005. Aetna's stock appreciation from its low point in May 2001, to December 30, 2005, was from \$5.81 to \$47.15, or 712%. Revenue in 2005 was \$22.5 billion.

The turnaround had been led by executives from outside. In 2000 the Aetna Board recruited Dr. John W. Rowe, experienced as an academic and as head of Sinai Medical Center but never as a for-profit executive, as the new CEO and chairman. Rowe brought in key executives in short order. Among the first was Ronald A.

Williams, group president of the Large Group Division of rival Wellpoint, as executive vice president and head of business operations. Williams became president of Aetna in 2002 and Chief Executive Officer in 2006. Rowe also recruited Wei-Tih Cheng as Chief Information Officer, a new Medical Director, and others.

Aetna's use of information technology was significant in enabling the turnaround. The company made large and regular new investments in technology systems and IT human resource capability. There was a new level of line management interest in IT and leadership, responsibility, and accountability for IT by business executives from the chairman on down. New governance and management processes in the business reflected and reinforced line management responsibility and accountability for IT. There were more disciplined and measurable processes in the IT function.

Executives who led the turnaround were conscious of a significant change in the culture of the company with regard to attitudes and behavior affecting the use of IT. They pointed to several specific initiatives and changes taken over the five years which influenced the culture and contributed to IT's role in enabling the turnaround.

¹ Carter, A., "Off the Critical List; Aetna's turnaround isn't complete, but so far the patient looks good." *Money*, Vol. 31 Issue 1, October 2002. Levick, D. "Prognosis Good for Aetna's Continued Recovery," *The Hartford Courant*, November, 2003. Martinez, B., "Road to Recovery—Behind Aetna's Turnaround: Small Steps to Pare Cost of Care—After Premium Boost, Insurer fixes data snarls, calls in experts to guide treatment—An MD finds it 'oppressive.'" *The Wall Street Journal*, page A1, 13 August 2004.

This case study was prepared by Cyrus F. Gibson of the MIT Sloan Center for Information Systems Research. This case was written for the purposes of class discussion, rather than to illustrate either effective or ineffective handling of a managerial situation. The author would like to acknowledge and thank the executives at Aetna for their participation in the case study.

The Executive Management Information System

One of the first initiatives by Ron Williams in his role as head of operations was to champion an executive management information system. Williams found the data available to him for decision making were plentiful but not consistent or structured so as to be useful. He called in a group from IT and told them he wanted a system that would display financial and profitability information reliably and consistently. The immediate response was that IT could give him a robust project plan in five months, in September. Williams recalled his reaction:

“I said, ‘No. I don’t think you understand. I’m not interested in a project plan by September. I need an operational system by September.’ They said, ‘It can’t be done.’ I said, ‘We are going to do it. Let’s talk about the barriers we have to getting it done, and let me know how we can together remove those barriers.’”

With intensive effort, regular involvement by Williams, and outside assistance from a software vendor and consultants, the first level of Aetna’s EMIS system was up and running by September. The system provided point-and-click access and drill-down capability on income statements for the enterprise and its profit-centered divisions. Over time it was expanded to include information on sales and profitability by other market segments, such as size of business customer, and also Aetna employees by location, medical payments by program, and so on.

In retrospect, Aetna executives saw several direct and indirect benefits from EMIS on how IT was used and viewed. One immediate accomplishment was a shorter time to close the monthly financials: from over 20 days to seven days. The project flushed out data inconsistencies. It led to a standardized “book of record” for definitions, the creation of a data utility, and a disciplined process for data management. Information reported in the system was consistent across the entire corporation, so sales and membership and profitability, for example,

meant the same thing at the same time everywhere.

This cleanup and consistency meant that data were available for more than executive monitoring of performance. Reliable and consistent medical cost data provided input for analysis of profitability of groups and individuals and therefore for improved pricing of new plans. Using analytical tools connected to their improved data utility, Aetna started making what one observer called “surgical decisions” on prices in the plans being bid on. One result was that Aetna deliberately set prices such that total membership dropped until 2003. But profitability grew steadily.

Beyond these tangible benefits, the exercise of creating EMIS and using it sent strong signals. It became clear that Williams expected his business executives to understand and articulate how technology could provide important tools, systems, and a data-driven methodology that would lead to better business results. In 2006 Williams recalled the effect of the EMIS and subsequent practices on learning and the culture:

“The creation and ultimate success of EMIS was a defining event in the organization. It showed people a new collaborative approach to working together with IT. It was particularly important to a company that had a history of a different approach. The new style was, ‘Let’s work together to understand barriers to getting things done, and help invent solutions.’”

EMIS epitomized standardization of key data and information. When we have a pre-agreed set of numbers presented in a uniform way you can train the company how to think about problems. It gives you the context for making choices.

You can get people to do really incredible things if you can share with them your vision, where the organization is going, what they can do to help, and ask them to give you the benefit of the doubt.”

IT Architecture and Capability

The development of EMIS and strategic discussions led Williams and his team to con-

clude that Aetna needed work on its IT architecture. They envisioned a business architecture that would be the key to Aetna being more flexible, responsive, and competitive as a business. The goal was to begin to move toward a service-oriented architecture environment to enable more efficient construction and easier integration of acquired software and acquired businesses. Aetna undertook a major program to improve its systems architecture from legacy-based, hard-coded applications and point to point systems to modular, user-table-driven applications. From the beginning, consideration was given to the organizational and business process impacts and changes that would eventually result from the new architecture. Regular annual investments in the program began in 2002 and continued throughout the turnaround, competing for funding with short-term payoff proposals. As one executive put it:

“The business leaders with Ron Williams decided on the IT investment priorities each year. All the IT investments came from the same pool of available funds, but the major architecture program had more weight than others.”

Given the pressure for all this work, CIO Wei-Tih Cheng and others saw the need to improve IT support of operational systems and to build people skills and project governance capability for systems development and enhancement. Early on, Cheng found that operational systems supporting such crucial transactions in the business as claims processing were siloed and unwieldy. Acquisitions and separate lines of business had led to the use of several claims engines. Errors were directly visible to doctors and patients. Enhancements to the systems, mostly written in COBOL, were expensive and depended heavily on personal knowledge and skills of experienced systems staff.

A key part of Aetna’s strategy for improving IT was to involve external sourcing providers. Some development work was moved off-shore to India. In 2003 the company entered into a large “co-sourcing” agreement with IBM, aimed at improving the skills of people and of systems development processes. IBM provided project

management training and several hundred staff working closely with Aetna IT staff. IBM and Aetna also implemented standard methodologies and metrics. Assessed at CMMI level 1, Aetna committed to achieving CMMI level 3 for systems development within three years.²

In 2005, Meg McCarthy, hired in 2003 to head the solution delivery function, became CIO upon Wei-Tih Cheng’s retirement. In 2006 there were some 250 projects under way, each with a business owner. Each line of business had an IT “portfolio manager” reporting to the head of the business, who served to help identify new systems opportunities and interface with ongoing projects in IT. In 2006, within IT significant improvements had been achieved in firmly established measures of productivity, quality, on-time delivery, and user satisfaction. The organization achieved CMMI Level 2 in June 2005 and in May 2006 was well on its way to achieve CMMI Level 3.

Day-to-day infrastructure operations and support for applications, while stable and serving Aetna’s needs adequately in 2001, kept getting better and better over the years even in the face of increased volume and complexity. Through systematic monitoring and persistently resetting targets higher, Wei-Tih Cheng oversaw significant improvement of reliability and cost controls in the data center. By 2006 performance by most key metrics achieved the six sigma quality level. An indicator of one business result that these systems supported was the fact that by 2005, 80% of claims were processed within 4.4 days of receipt, compared to 8.4 days in 2001.

Thus, the IT function at Aetna during the turnaround focused on short and long-term improvement and showed every sign of achieving its goals. Comparing the experience to that of other organizations, McCarthy said:

² “CMMI” is “Capability Maturity Model Integration,” a set of standards for several levels (1 to 5) of processes for producing software and other IT-related activities. The standards have come to be widely accepted as a way of comparing IT practices. Achievement of levels is accomplished by a firm being judged by independent assessors.

“In my experience of consulting to and working in large organizations, I have not seen anywhere the level of business commitment to IT. Aetna is committed to improving people skills, work processes, and architecture. There is a senior management commitment to improve the overall operating capability that requires stamina and leadership from our senior team.”

IT Governance

In parallel with EMIS and investments in IT, Aetna also introduced new governance for the management of IT. Williams was a strong believer in a disciplined “management process.” For IT, this meant business ownership of systems development projects. By 2004, IT budgets for capital and operations expenses were included in the three-year business strategic plan and within the annual plan of each business profit center. In quarterly business reviews, managers included reports on the progress of their IT projects and implementations.

The IT investment process began each year with an identification of a total capital budget for the project portfolio. The business leaders identified their priorities and they were approved by senior management and the IT Steering Committee, headed by Ron Williams and including Meg McCarthy and others of his direct reports.

Change in IT governance was also notable at the program and project levels. One of Ron Williams’ first exercises was, he recalled, “...poring over 242 IT projects with IT and business leaders and assigning a business leader to each one.” Subsequently all new projects were owned by a business leader, and successful implementation and achievement of near-term benefits or savings were part of that leader’s balanced scorecard performance measures. Indeed, having business managers take ownership of IT in terms of planning and project leadership was a priority for Williams, indicative of the “training” in IT that he felt was crucial for business managers:

“I say to our managers, ‘If you want to be a senior executive around here you need to

understand IT to have much of a future. We will help you, we will train you on the job, we will put you in assignments where you get exposed. But if you don’t understand how technology impacts your business, how to be a good partner with the technology side, you may be a strong, high-performing functional specialist but you won’t be a general executive.’”

On a regular basis projects in development followed a highly structured series of problem-driven project review meetings. Level One meetings were weekly project reviews, led by project managers team by team. Unresolved issues went to weekly Level Two meetings, where the relevant project managers met with the portfolio managers from the business side. Issues there, particularly budget issues, were addressed in the weekly Level Three meeting, led by McCarthy and including all portfolio managers from the business units and her direct reports. Finally, if further issues remained, particularly with regard to an upcoming major release (typically four a year) or minor release (six a year) it was taken up in the monthly meeting of the IT Steering Committee.

Results and New Issues

In a comparison of old and new management practices relating to IT, Aetna executives in 2006 were uniform in noting improvement. One executive who had observed the company over the years rated Aetna on five “management characteristics” using a survey questionnaire distributed by MIT’s Center for Information Systems Research. The characteristics measured management involvement and support for IT, integration of business and IT planning, the effects of political turbulence, user satisfaction, and IT practices within the business. The results for this executive were improvements on each measure, and a 59% improvement overall.

The improved practices and capabilities enabled Aetna to respond with new strategic initiatives. An example pointed to by Aetna executives was its online medical advisory tool for individuals, “Aetna Navigator.” In a comparison of similar offerings by United Healthcare and Wellpoint,

BusinessWeek judged Navigator “the richest of the three by far...”³

With improved management and results from IT showing up by 2006, a next level of issues surfaced. One of these was the difficulty of estimating the costs and benefits of new application projects. With Aetna committed to earnings forecasts and IT accounting for a large part of expenses, budget overruns on a few large projects expected to yield dollar benefits within a year could have noticeable negative effects on earnings and stock price. Another issue was the need to accelerate the introduction of new systems, given the faster pace of IT-related changes in the health care management marketplace. The need for new systems from a competitive perspective required speed of implementation. This speed could not be produced by a traditional systematic and sequential systems development process. Fully aware of this issue, senior executives had introduced two new initiatives:

1. Speed internal solutions by continuing to implement a services-oriented architecture designed for modularity. This had been a focus of IT since the initiation of the architecture program several years back.
2. Leapfrog internal solutions and current business models by strategically looking at make/buy alternatives. An example was the purchase of the firm ActiveHealth Management in 2005. Their system enabled a more robust clinical care evaluation and considerations for providers and members.

Executives were also working toward improvements in project estimating practices and were considering the introduction of some of the estimating measures into the balanced scorecard to improve accountability.

Rowe’s Perspective and Role

Executive Chairman Jack Rowe was asked to reflect on these changes and the role of IT in the turnaround. His perspective provided a sum-

³ Weintraub, A. “How Good Is Your Online Nurse?” *Businessweek*, Feb 20, 2006.

mary on the subject. Rowe described IT in the context of five business problems he faced on coming to Aetna.

“First, external relationships, with physicians and customers and members, were poor. Lawsuits for lack of coverage and payment delays were building.

Second, operations were not functioning adequately, as indicated by slow claims payments and medical payments increasingly exceeding premium income from those plans.”

Rowe paid personal attention to improving external relationships. In 2003 Aetna made national headlines with a breakthrough agreement to settle physicians’ claims and set a new path for transparency in claims payment rules.⁴

Regarding IT and these two problems, Rowe went on:

“IT was directly relevant to the external relationships and operational problems. We had to make our systems easier to use and more understandable to those stakeholders. We needed to be more efficient in claims processing and other operations. We found we had too many legacy infrastructural systems, a derivative of our acquisitions and our not having integrated them effectively.

The most important IT issue behind both of these was that our actuarial systems were not responsive and prompt. We were pricing proposed plans based on claims costs that were out of date, and with medical costs rising at double digit rates that guaranteed us to lose money. And we did.”

The third business problem Rowe saw was an organizational issue: Aetna had not segmented its customers in the market, but only geographically.

⁴ In 2003, Aetna settled a long-running class action lawsuit with doctors and medical associations, breaking ranks with other health insurers. It agreed to pay \$100 million, to pay doctors’ lawyers \$50 million, to establish a foundation for improving healthcare with \$20 million, and to provide more transparency through clearer information on what it would cover in advance of treatment (Page 1, *New York Times*, May 23, 2003).

“Among other things it did, our EMIS helped us get to the heart of this problem by making data available by type and size of business customer...”

The fourth problem Rowe described was “strategy”:

“We had the wrong strategy for the business. I saw IT as offering two values. First is the value to improve operations, fidelity, efficiency, reliability. My guess is this is 99% of what we were paying attention to then and now. Wei-Tih Cheng, whom I had known from a distance prior to Aetna as the leader of a very successful IT function at Sloan-Kettering, came in and reported to me to begin to get IT turned around to deal with this part. Soon we had him report to Ron Williams for that.

But I had Wei-Tih continue to report to me for what I called seeking the Holy Grail, or

the Manhattan Project. That was to get the strategic value from IT that will differentiate us in the market place, to create a preferred view of us by the consumer, a preference that is IT-driven. This was behind our recent online self diagnostic tool, as praised in BusinessWeek.

We’re not there yet by any means, but we’ve got a bias and attitude in the organization that this competitive use of IT is a good thing to do.”

Rowe listed the overall culture as his fifth problem, and commented on it in relation to IT:

Aetna when I came was not a meritocracy. People had lost their pride. I told them I wanted to help them restore their pride, to be part of making Aetna great again. In IT there was the lack of a service culture. To turn that around was the most important criterion I used in looking for a new CIO.

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