Mar-Tex Chemical: Managing the Research Partnership Between Business and Academia

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Martin Browning, Vice President of Information Systems at Mar-Tex Chemical’s Cincinnati plant, was reviewing the recent events surrounding a research partnership with a major U.S. business school. Martin had attempted to partner with an academic researcher, Louis Whittaker, to jointly study the problem of system analyst turnover in his organization. Martin had known Louis for a while, since Louis had been involved with one of his previous development projects on configuring network architecture. But the current project had become a problem for all involved. Martin now had to decide how to salvage the relationship with Louis and the business school. In the mean time, he had to repair relationships with several of the functional managers within Mar-Tex.

As Martin prepared for a meeting with the executive committee to discuss employee turnover, he wondered what avenue he might try to obtain answers to potentially sensitive issues. The human resources group had not been able to help, and Martin had considered a joint research project with an experienced academic researcher as the best way to study the problem. Martin was now looking for a new way to get answers.

Background

Mar-Tex Chemical is a Fortune 500 company with plants located around the world. The company produces chemicals that are used in the oil and gas industry and in the manufacture of plastics. The automated control of the company’s manufacturing process requires extensive information systems development and maintenance.

Martin Browning, the Vice President of Information Systems (Figure 1) at the company’s Cincinnati plant, heads much of this work. Since he was hired three years ago, he has encouraged the Cincinnati plant to invest heavily in advanced software, hardware, and training programs to increase analyst productivity. Despite these efforts, analyst productivity has
remained flat, while analyst turnover has increased steadily over the past three years, reaching a peak of thirty percent last year.

The reasons behind the turnover were not clear. The last wage survey completed by the human resources department indicated that the company’s salary level for systems analysts was above the industry median for systems analysts. Martin admitted, however, that department morale was low and that previous efforts to reverse the high-turnover trend had been unsuccessful. Earlier in the year, Martin had submitted a proposed analyst incentive program to the human resources department. The program would reward all systems analysts up to ten percent of their annual salary for taking classes or learning new systems development techniques. Rachel Stevens, the vice president of human resources, approved the project, but changed the eligibility criterion from all analysts to only analysts with more than three years experience. Because of the historically high turnover level in the company, only thirty of the two hundred analysts qualified for the final version of the program. Martin recalled the outcome of the programs as follows:

I agreed to the eligibility restriction because it was the only way it would be approved, and I felt we needed to do something to decrease turnover. In the end, however, the incentive program blew up in our faces. Analyst turnover is a problem across seniority levels, but our most critical problem is retaining analysts who have been with the company less than three years. While I wouldn’t admit it to my employees, the younger analysts do tend to be more eager to learn new systems development techniques: we rely on them to keep our systems’ designs at the forefront of technology. Because none of the newer analysts qualified, they saw it as an effort on the part of management to reward seniority, not performance. Three of the newer analysts that left said that they were leaving because of the bad feelings generated by incentive program.

The Partnership

Louis Whittaker was a Ph.D. candidate in information systems at a leading U.S. university. In his third year as a doctoral student, he was increasingly under pressure from his department to focus on a dissertation topic. Louis had forged an excellent working relationship with Martin and his systems development staff. For two years, he had been traveling to Mar-Tex Chemical to study the implementation of Mar-Tex’s client/server architecture. In four visits, Louis had collected over one hundred surveys from Mar-Tex employees. Being a former systems analyst, Louis understood the systems analysts’ stresses and responsibilities.

During a data collection trip a year ago, Louis attended a talk that Martin gave at an information systems seminar. Martin focused on a problem which he felt was becoming common in high technology companies, the retention of systems analysts. He stated that he was so concerned that he was willing to fund research that would investigate the problem.

Louis returned to Cincinnati three months later to present his ideas for a possible research approach. He expected to give the presentation to a number of executives. Instead, Martin reviewed the proposal and enthusiastically approved the research approach—including a pilot study, access to the systems analysts’ performance reviews, and the administration of a final survey. Martin also agreed that Mar-Tex would pay all expenses related to the research, including travel and other incidental costs. Commenting on Louis’ research proposal, Martin stated:

I saw Louis’ research proposal as a golden opportunity to use a well-trained researcher to answer a question for which we needed an answer: how can we retain our best analysts? I felt that we needed somebody from the outside to investigate the problem.

Louis was asking for five thousand dollars to cover the expenses related to the research. I felt I was getting a bargain. Since Louis could use the data for his dissertation, he wasn’t asking to be paid, only that I cover his expenses. A consultant will go through that much money in two weeks. For five thousand dollars, I would receive a complete analysis of the effectiveness of our compensation system and how that system should be modified to reduce turnover, and “hopefully” increase productivity. Louis had conducted research at Mar-Tex for two years. My employees knew him and trusted him. I felt that the analysts would confide in Louis in a way that was impossible for anyone inside the company. As a company, we needed people to open up and tell us what we were doing wrong, whether or not it was pleasant to hear.

Shortly after the approval of the research project, Louis’ dissertation committee approved his dissertation proposal based on his work at Mar-Tex.

Over the next six months, Louis conducted analyst interviews and developed a pilot questionnaire. The upcoming pilot test of the questionnaire was important. The acquisition of sensitive data, including analysts’ salaries, intentions to leave the company, and team member performance, was critical in answering the questions about the company’s turnover problem. If management balked at the questionnaire, then Louis knew that he would have to rethink his research approach. Because the questions were also potentially intrusive to the employees, he sent the pilot version to Martin. Martin wrote back that everyone was excited about the study and that he saw no problems with the survey.

Louis was pleased with the feedback that he received at
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