

MBA 732: Knowledge Management (Summer 2005)

KM Interview with Bill Schrader

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Bill Schrader was the CEO and founder of PSInet and has started various ventures including a Venture Capital firm in the Washington DC area. At its peak, PSInet had over 10,000 employees; yet, overnight in the year 2000, the company ceased to exist. But, the company had over 12 years of life as it grew from a tiny regional operation in New York to one of the top 5 telecommunications companies in the world. This is the distillation of a 5 hour interview that ranged from KM to his life story in big business.

PSINet was originally created on a drive home to Ithaca NY one night with his wife. They were talking about recent events that occurred at his current job and he told her “I’m going to form a company.” She asked what it was going to do, and he said that it would do everything related to making systems work better. Before they arrived at home, he had come up with the name “Performance Systems Inc.” The company would supply everything needed to support a business and would expand as expertise expanded. The next day he went to a lawyer to create the company. A little over 12 years later, he found himself at the front of the line for bankruptcy in the internet bust of 2001. In his words, “the cause was somewhat simple.” In the quest for growth, he hired management with big company mentalities and together they embarked on an acquisition strategy that overleveraged the company. When the acquisitions began to fail in 2000 and PSInet could not cover the margin calls, the banks took possession of PSInet and liquidated it.

In our discussion, Mr. Shrader was explicit to point out that he did not have a knowledge management department or a specific set of guidelines that managed the information of the company. But, he had built knowledge sharing into the culture and strategy of the company from the moment he conceived the idea. He had started various ventures in the past and knew how to build a company from the ground up. In this venture, he knew he would have to compete with the top telecommunications companies on a global scale so he created a strategy in which PSInet

would contribute to a fundamental change in an industry, force the large carriers to have to keep up, and outmaneuver the telecom giants using their own networks at their own game.

Mr. Schrader started out working in a university environment and applied his experiences within universities to create a culture of knowledge sharing and self-documentation. He overstaffed with people paid lower than the average salary and gave them an incentive that made them a part of a community. His deviation from the university model was that his incentive was in the form large grants of stock options that would cement a relationship with the staff such that if nothing else worked, greed would keep them pushing forward. This was common for what is now known as a “.com” compensation model but was unusual for the early 1990s. The overstaffing and drive to share information capitalized on the “water cooler” effect. By having people who were highly motivated to contribute to the growth of the company and significant free time to think through problems, he created a culture in which people used their free time to think and talk about new ideas that could make the company more successful. But he took this further by rewarding people for publishing their work in the public forum and internally so that ideas could build on ideas. The marriage of unvested options, excess time, and a university like push to publish information successfully drove the company forward.

But a big part of the strategy went beyond the people in the work environment. He also had to drive the telecommunications industry into a frenzy of change to put the big carriers off balance. This was accomplished by rewarding people for going to conferences and participating in the international efforts to create new telecommunications standards. His company created and held numerous patents and copyrights in the network community which were at the core of how the networks would operate. Yet, he gave these technologies freely to the telecommunications community. PSInet and companies such as IBM and UUNET were creating protocols for building massively scalable data networks that could marry seamlessly to the

already popular local area networks. SNMP (Simple Network Management Protocol) and the GATED (Border Gateway Protocol) reference implementations were contributed by PSInet to the open source community resulting in immediate expansion of their use in the packet switched networks that universities and the government (DARPA) were driving forward. These two reference implementations formed the basis that eventually created the highly efficient backbone networks that all carriers use today. The large carriers were focused on a technology called circuit switching in which a client would lease a dedicated point-to-point connection and pay a fixed cost regardless of the usage of the circuit. The result was a very expensive and inefficient network of communications. PSInet's use of packet switching technologies allowed companies to connect to their network and only use the network as they needed and only pay the cost of a local connection to get to the PSInet network. The result was significantly lower cost for the customer and more efficient utilization of the backbone network. Economies of scale took over from there to create financial success.

By making PSInet's knowledge publicly available, the company tapped into a worldwide community that would better the designs and do the legwork of proving that it worked. In the course of less than a year, AT&T, Sprint, and MCI found their circuit switched networks to be archaic and customers clamored for the lower cost of a packet based public network. Mr. Schrader had achieved his life long goal... "To change the world". The large carriers were now scrambling to keep up with PSInet, IBM, and UUNET who built very efficient networks on fully leased core backbones. The irony was that PSInet was making more money than the carriers by using the carrier networks more efficiently than the carriers were equipped to do.

Information and knowledge management was working as a strategy for PSInet. Internally he encouraged his staff to create new ideas and publish them in the telecommunications community. This ensured that people were writing down everything with

the hope of getting it published. That which was not published was circulated internally spawning other ideas to build to a published paper. This strategy had multiple benefits but the most important one was a competitive and collaborative combination that drove people to document and share what they knew. Every published paper that was adopted in the telecommunications industry put the telecom giants at a further disadvantage. Oddly, there was no technology-based infrastructure that encouraged or pushed the internal distribution of information. Email and network file storage were all that were needed. The employees did the rest to organize, review, and promote contributions.

Mr. Schrader's form of knowledge management may not be as explicit as having a CKO, but it was effective in taking advantage of creating a community of knowledge. He was also explicit that he had some basic rules in place to control the ownership of knowledge and the retention of information. 1) Never outsource any area of expertise which is strategic to growth and survival. 2) Never outsource customer support, engineering, or management. 3) At most, sales could tolerate about 20% outsourcing through resellers. 4) Everyone in the staff was rewarded and expected to publish their work in an international and open forum. He applied an academic approach to sharing information with a business strategy that reinvented how an entire industry would compete and do business. From the start, the culture was that of sharing knowledge and there was never another option. He took advantage of people's natural tendency to operate as a community and added incentives for the people to apply their community knowledge to the improvement of the company. PSInet provides a compelling example of a model in which a larger community of knowledge can be used to unseat entrenched rivals and change the world.