LESSONS FROM RESUSCITATING TWO HIGH TECH VENTURES

KENNETH G. HARDY*

Highly technical business start-ups are frequently expensive and risky. This article describes how two entrepreneurial “tech” projects were pulled back from the brink of disaster by entrepreneurs who understood how their customers wanted to buy, the benefits they wanted, and the functions that the organization could outsource rather than make in-house. These two cases may help readers understand the nature of the risks facing early-stage ventures, particularly the risks of misinterpreting market wants and needs. It may also assist lawyers who are serving new high-tech ventures to identify gaps in the entrepreneur’s market understanding and bring these blind spots to the attention of the entrepreneur. Entrepreneurs and others who become skilled at rescuing imperiled ventures make a significant social and economic contribution.

I. INTRODUCTION

Venture capitalists have learned from hundreds of new high-tech ventures to expect a range of successes. From any ten projects, one is likely to exceed expectations, two or three will meet expectations, three or four will survive but not meet expectations, and three or four will go bankrupt. Any entrepreneur who can improve the chances of success for an early-stage venture makes a useful contribution to the economic health of the country. The collapse of a venture wastes the efforts of the original entrepreneur in marshalling the resources, including the people, the patents, the technology, the systems, and all the legal work that is required to establish a venture. To be sure, some assets from failed ventures are occasionally salvaged for other new ventures, but the unique-in-time-opportunity has been foregone. Better management could save some projects from bankruptcy. Here are two cases in point.

* Kenneth G. Hardy is a professor at the Richard Ivey School of Business at the University of Western Ontario located in London, Canada.

1 About 60 % of U.S. start-ups fail in their first six years and more than 70 % fail in the first eight. AMAR BHIDE, THE ORIGIN OF EVOLUTION AND NEW BUSINESS 207 (Oxford Univ. Press 2000). The situation is similar in Canada. Only about 30 % of new firms survive past six years in all commercial industries, according to Statistics Canada. JOHN BALDWIN ET AL., STATISTICS CANADA, CATALOGUE NO. 61-526-XIE, FAILURE RATES FOR NEW CANADIAN FIRMS: NEW PERSPECTIVE ON ENTRY AND EXIT (2000).
II. Case 1 — eJust

eJust is a software program and database used by police services in Ontario to lay criminal charges and carry them from a police department into and through the courts. eJust replaces paper charge systems that require a police officer's selection of proper charge documents, completion of multiple documents by hand, and the reproduction of many elements of those original documents as police charges are transformed into court charges. The hand/paper system is laborious, time consuming, and error-prone because of the many opportunities to lay an incorrect charge or make copying errors. With eJust, the police officer merely types in the nature of the specific criminal offence, the age of the defendant, date of the alleged offence, and one or two other pertinent facts. The software program then draws up the correct charges on the correct forms for the officer's signature and further processing.

For eighteen years, four entrepreneurs in London, Ontario, had been developing and supporting a variety of software applications for local businesses which yielded steady income but failed to offer an opportunity beyond selling their engineering time. They thought that a software product could be developed around one specialized but widely-used application to earn a large amount of revenue. The concept for eJust was developed in 1993.

eJust required a major investment in the software developer's learning about the intricacies of the Ontario police and court services. The founders also had to develop a charge template and a major database that contained the appropriate charges to be laid for a given age of an offender for a particular offense in a particular year. The large database was required because criminal charges are modified by changing legislation over the years, and being charged as a youth is different from being charged as an adult. There were several thousand potential charges that a police officer might have to file, but eighty percent of charges involve twenty percent of those potential offenses. The eJust automated charge system was shown to reduce the time required to prepare a set of charges by up to two-thirds of the time required to file the same charges using standard paper forms.

The first demonstrations of eJust for the London, Ontario police services brought rave reviews from the front line officers who were using it. The chief of police at the time was generally acknowledged to be an innovator in many aspects of policing, and he fully supported the experiment with the new charge system. However, it was the front line

---

3 Id. at 4.
4 Id. at 2.
5 Id. at 3.
6 Id. at 5.
officers who valued the accuracy of laying and carrying the charges through the court system. With paper systems, aggressive defense attorneys delighted in embarrassing police officers who had made even a tiny clerical error in transcribing charge sheets, and defendants frequently were acquitted based on these minor technical errors. A study in a nearby city of Kitchener-Waterloo, Ontario, found that police officers experienced more stress in preparing court forms than in dealing with brawls.

The founders of eJust quickly expanded the eJust trials into other cities in Ontario. They focused their selling efforts to police chiefs on showing that the system could save officer's charging time. In fact, the founders suggested that the chiefs could reduce the number of officers and save money, or divert those officers to non-policing tasks. Each adaptation of the original system for a particular city's police force required a significant investment for eJust in time, installation, and training – usually in the realm of $100,000, which the founders proposed to charge to the particular police service and the municipality. The complexities required an eighteen-page contract and the approval of the local city council and chief financial officer.

Despite more rave reviews from front line police officers in the four small cities that adopted eJust, the founders did not sell any eJust systems to the large cities such as Toronto, Hamilton, Windsor, and Ottawa. Each of the police forces in these cities already had large Information Technology (“IT”) departments. The sight of a large investment in IT always provoked the discussion about doing the work in-house. Although these departments eventually concluded that eJust truly contained proprietary technology, the momentum to experiment with eJust frequently had been lost by the time they reached this conclusion. Moreover, police chiefs generally were not well versed in the leverage available from new software.

eJust founders also participated in a three-year province-wide attempt to modernize the information technology of the police and justice systems in the province. Unfortunately, this complex private/public joint venture ended in little progress and plenty of recriminations for all who participated. An attempt to bring in a more sales-oriented CEO leader also failed, and the eJust system was a big disappointment to the labor-backed venture fund that had bought a majority share of the equity from the four founders. The eJust organization languished for three years with just

7 Id. at 2-3.
8 HARDY, supra note 2, at 2.
10 HARDY, supra note 2, at 9.
11 Id. at 8.
12 Id. at 6.
13 Id. at 9.
14 Id. at 6.
15 Id. at 8.
enough revenue to keep it from going bankrupt, and most of that revenue came from projects other than eJust.\textsuperscript{16}

In 2003, the labor venture fund managers placed a new CEO in the eJust organization and told him to put it up for sale.\textsuperscript{17} The best offer he received over several months was less than the venture fund’s investment and less than its estimate of the organization’s value. The fund managers then told the new CEO to see if he could fix the revenue and profit problem. The new CEO began calling on existing and potential customers. He found that the chiefs of police were indeed the main persons to determine the purchase. However, they did not value time savings that would reduce their police force; if anything, they wanted to build the size of the police force.\textsuperscript{18} The main value for them was the system’s accuracy. Moreover the police chiefs disliked investment spending that required complex legal documents and a year of wrangling with elected officials. What they wanted was a system that could be budgeted as an annual fixed cost, preferably on an annual per officer basis to make it easy to justify.\textsuperscript{19}

eJust’s new CEO used the new information to revise the selling and marketing approach. The investment became a multi-year user contract written on three pages rather than eighteen, and it was priced at $100 per officer per year.\textsuperscript{20} There was no longer any need for municipal review. The new CEO added two full time sales people. Within six months, he and his sales team had sold several major cities in the province; fifty percent of the police officers in Ontario began using eJust.\textsuperscript{21} Annual revenue jumped to almost $1 million and the organization was launched on a success track with new opportunities in other provinces and other countries.\textsuperscript{22}

There may be several lessons to be derived from the eJust story. It was important to understand each police chief’s most important motivation and desired purchase process. The eJust organization had to borrow money to finance installations in each new city, but it simplified the purchase process for police chiefs. The founding technicians suffered from lack of experience in selling software systems. The new CEO had substantial experience in selling software to businesses, and he was able to leverage that experience to sell eJust. As a result, the labor fund was pleased to make a reasonable return on its investment. It was finally able to move eJust from the near bankruptcy list to the ‘more-than-meeting-expectations’ list.

III. CASE 2 — QUACK.COM

\textsuperscript{16} HARDY, supra note 2, at 8.
\textsuperscript{17} Id.
\textsuperscript{18} Id. at 5.
\textsuperscript{19} Id. at 9.
\textsuperscript{20} Id.
\textsuperscript{21} Id.
\textsuperscript{22} HARDY, supra note 2, at 9.
Quack.com was a public voice portal that was founded in 1998 in California to provide quick and easy (voice) access to the benefits of the Web. Quack.com advertised a toll-free telephone number that one could call and ask, “What is the weather in [city]?” and the caller would soon receive a voice answer derived from a Web source. Other typical applications would be to find a restaurant, a service station, or perhaps an answer to a more general question—anything that utilized information available from the Web. The founders believed that the convenience of using voice commands was a major advantage over using a computer directly to make those same inquiries. They thought that travelers, particularly people driving in their cars, would be major users.

Quack.com trialed the service on March 31, 2000, to become the first public voice portal in the world and opened a nationwide service on April 10, hours before their Tellme Networks competitor. The original business plan intended for revenues to be derived from advertising and sponsorship of the public voice portal, commissions from sales purchased through the voice portals, development fees for creating third party voice portals, and a licensing fee for the Quack software suite.

Quack.com founders recognized that the voice service required Quack.com to provide five functions in order to make the service work. First, Quack had to tell potential customers that the service existed. Second, they needed to provide an access point—a telephone number to call, preferably a free call. Third, the voice command had to be translated into a command that a Web search service could understand, then the browser had to find the answer and finally translate it back into language for the waiting customer. Quack’s technology was focused on the third, fourth and fifth functions, but it still needed to attract customers and provide telephone access for the service to be used. Quack had no particular competencies in the first two functions — and the first two functions were far and away the most expensive to deliver!

Quack.com spent millions advertising its existence, benefits and telephone number, but found relatively few subscribers and few interested advertisers. Unfortunately, the technicians in the company resisted efforts to move from a public voice portal to a more particular business portal offering voice services for particular applications such as a call centre, a bank, etc., even though these applications looked like they were within...

---

24 Id. at 2.
25 Id.
26 Id.
27 Id. at 4.
28 SHOMAIR & HARDY, supra note 23, at 4-5.
29 Id. at 2.
30 Id. at 5.
technical reach and offered high value. For the technical people, the magic and the excitement was to make voice recognition searches available to the masses. For the founders, there was just three month's funding remaining when they made their final choice of business model and future activity. The founders could re-focus the company on a particular business application, sell to their competitor, Tellme, look for other strategic buyers, or sell Quack.com to a labor venture fund at a very low price that would not begin to recoup the original investment.

The potential strategic buyers were firms that could perform the first two functions - awareness creation and telephone line provision — better than Quack. For example, the founders reasoned that Verizon or AT&T might be suitable buyers because they were already telephone carriers, their telephone line costs would be low, and they might use a ready-made voice recognition service to automate service inquiries. Another set of strategic buyers were the Web browser firms such as Yahoo, Lycos and America Online ("AOL"). None of them offered voice recognition as part of the service, except for Quack.com’s small contract with Lycos that effectively prevented them from teaming up with either AOL or Yahoo.

The Quack.com situation was made worse by the fact that their main competitor, Tellme, had just linked itself with AT&T for $50 million in service in kind. Further, Quack.com was unable to raise a second round of financing, but both Tellme and BeVocal, another competitor, had succeeded in doing so. The Quack.com founders were feeling that they were at a distinct disadvantage — and they feared they might lose their investment. However, in the summer of 2000, the Quack.com founders jettisoned the small contract with Lycos, and in September, they announced the sale of Quack.com to AOL by Phone for a fairly handsome valuation.

There are several lessons one might take from the Quack.com experience. It is useful to test the business model for functionality. Small start-ups are safer to stay within their own competencies and to partner with other firms to supply their missing competencies, especially when the other functions make up the bulk of the cost of the service. They need to be able to answer the tough business questions such as the following: Do drivers really want to be able to make general inquiries, and do they want to keep a telephone number on hand for this purpose? How would this general voice service compete with the more specific applications such as General

31 Id. at 7.
32 Id.
33 HOMAIR & HARDY, supra note 23, at 11.
34 Id.
35 Id. at 6.
36 Id. at 5.
37 Id. at 11.
38 Id.
Motor’s OnStar safety, map routing, and concierge services? Yes, there is a certain magic in being able to make commands and leverage the great search power of the Web, but who needs it? If few need it, why would advertisers pay to advertise on the medium? How would it work for telephone services—ads while you wait? Who wants to wait? Some may consider that the Quack.com founders were fortunate to sell to AOL as a strategic exit and derive a high valuation on the enterprise.

**IV. SUMMARY**

Many high tech ventures initiated in the 1990s continue to survive as parts of other companies, or in some cases, as free-standing organizations. In these two cases, the founders were enraptured by the promise of benefits from the technology. Both sets of founders miscalculated the market wants, and thus could not provide revenue as expected. Both were missing at least one of the core competencies required to provide the total service they offered. Both eventually found a form of success, but only after significant tribulations.

Who else might have assisted these founders during the early stages of these tech firms? Some of the trusted advisors in the early stages are the venture funds themselves who usually provide depth of industry experience and consulting advice for their investments. Many early stage firms hire an experienced executive to help collect and protect the intellectual property, and such a person might have been able to ask some questions about the business model. Most start-ups use legal services that might be able to ask some useful questions about the markets and the business model. Clearly, the business plans for these firms needed more depth and verification. It may seem trite, but there is no substitute for industry experience in conducting start-ups. Students studying these cases frequently remark that the real culprit was the ease of funding tech ventures during the heady days of the dot.com boom, and that those days will never return. Those comments from young observers make for a very interesting discussion!

How could lawyers help to avoid failures in new ventures or to help resuscitate them? Although legal advice cannot be expected to offer direct answers to market questions, lawyers serving start-ups should gain valuable experience over time. Perhaps the best thing they can advise is what we learned in a first course in contract law: When a project is significant and you lack critical experience, hire it!