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In Search of a Viable Business Model

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Abstract. The case uses the dramatic rise and fall of a Web-economy company from 1997 to 2002 to help students consider the meaning and design of business models. The company, formerly known as Chemdex, and then Ventro, is now known as Nexprise. Once traded on NASDAQ at a share price of $250 and a valuation of approximately $8 billion, today the stock is traded on the OTC exchange for about $1 per share and a market capitalization of less than $5 million. The case describes the four business strategies and three distinct business models embraced by the company over the past five years.

Keywords: business model, venture finance, company valuation, internet bubble, and business planning.

1. Introduction

David Perry, CEO of Ventro Corporation, describing to an eCompany magazine reporter how he had to change business models rapidly during 2000:

> Think about how fast that is. You go public as Chemdex in July, by September you're two companies, and by December you realize this idea of independent marketplaces doesn't make sense and you've got to get bricks-and-mortar companies involved. Our entire business changed in a five-month period. Not externally, but our internal understanding.[1]

eCompany reporter to Michael Dell, CEO of Dell Corporation:

> What has been the biggest waste of money [during the Internet age]?

Michael Dell:

> The biggest waste of money has been all the investment in companies with so-called new-economy business models. Business fundamentals haven't changed, and a lot of investors lost sight of that – and are paying for it.[2]

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1. "Why is David Perry Smiling?", eCompany, Will Bourne, January 2001.
2. "If I Knew Then What I Know Now", eCompany, March 2001.

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Professor Michael E. Porter of Harvard University, writing in the March 2001 issue of the Harvard Business Review:

> The misguided approach to competition that characterizes business on the Internet has even been embedded in the language used to discuss it. Instead of talking in terms of strategy and competitive advantage, dot-coms and other Internet players talk about "business models." This seemingly innocuous shift in terminology speaks volumes. The definition of a business model is murky at best. Most often, it seems to refer to a loose conception of how a company does business and generates revenue. Yet simply having a business model is an exceedingly low bar to set for building a company. Generating revenue is a far cry from creating economic value, and no business model can be evaluated independently of industry structure. The business model approach to management becomes an invitation for faulty thinking and self-delusion.[3]

This case explores the rise and fall of one of the most praised and high flying start ups of the dot com B2B bubble. Chemdex started with a focused strategy and business model to create a B2B trading exchange in specialty chemicals that was attractive enough in the financial climate of 1999 to enable the company to raise $45M in venture funding and to float an IPO that quickly valued the company at over $1 billion. Soon, the valuation was driven in excess of $7 billion on the public markets. The case describes the changes in strategy and business models that management subsequently pursued to try to "earn" this extraordinary market valuation. Chemdex, which focused on providing a single industry vertical on-line exchange for trading specialty chemicals, became Ventro, which developed multiple trading exchanges. Ventro then changed its focus, closing down these industrial vertical on-line exchanges to become a vendor of the underlying technology and services, seeking to sell them as a tool kit to other companies wishing to set up their own on-line marketplaces. Then, Ventro transformed into Nexprise through an acquisition of a groupware company, and has since focused on that strategy with a rather traditional software products company business model. The case offers a cautionary tale of the difficulties and challenges in changing strategies and business models, of overselling the promise as opposed to the reality of a business, and of the extraordinary speculation that occurred during the Internet bubble.

During the late 1990s, the concept of a "business model" became a much discussed aspect in business venturing. The concept was nothing new to business: it only restated the fairly obvious point that a company had a clear description of how it would make money, how much money it would make, and how this translated into increased shareholder value. Business models take form in a firm's financial statements, primarily in its profit and loss statements (P&L) and how earnings from the P&L enhance the balance sheet and ultimately the company's valuation.

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3. "Strategy and the Internet", Michael E. Porter, *Harvard Business Review*, March 2001, p. 73.

At a deeper level, a business model links a firm's business strategy – its target markets, products, and services – with its financial outcomes. A company must know how to differentiate itself in a target market and how to provide clear benefits in its products and services. These offerings must lead to sales, earnings on those sales, and improved shareholder value. The business model is therefore the dynamics of and behind the P&L. These dynamics have five important dimensions:

- The first dimension comprises *gross and operating margins*, and how these change as either volumes of product or services increase. To obtain funding and successive infusions of growth capital, an entrepreneurial firm must be able to substantiate its projected gross and operating margins.

- The second dimension of business model dynamics are how *revenues and expenses ramp* over time as the business grows. Once again, an entrepreneurial firm must be able to justify its volume projections in order to win investors.

- The third aspect to the dynamics of the business model is the *capital required to achieve production volumes* and to achieve effective ramp-up. Many entrepreneurial firms try to defer capital expense by using co-manufacturers for production in the early years.

- The fourth aspect of the business model is based on the demand for new products and services within a firm's industry category, which leads to the *investment needed in R&D* to produce a stream of new products or services. For many startups, the cost of engineers becomes the largest and essentially a fixed cost of the business.

- Lastly, a business model is noted for the *path to profitability* that is shown for early stage firms in their respect P&Ls and integrates all the previous dimensions. Today, investors seek profitability measured within several years, as opposed to four or five. Cashflow and earnings are seen as necessary for attractive valuations, as opposed to simple multiples of sales.

These five factors – operating margins, revenue and expense ramp-up, capital expenditures, R&D intensity, and the path to profitability – are the essential ingredients of "the business model" that any new or growing firm needs to articulate for prospective investors. The business model is not so much the P&L, but what is behind the P&L that makes it not only believable but compelling.

A company's decisions on each of these five dimensions can lead to a different business model. The classic business model for manufacturers of physical products is to set a retail price double its cost of goods, to invest from 2% to 10% in R&D, to have substantial capital requirements, and to expect a sales to fixed asset ratio of 4 or more within several years of launching new product lines. A classic service business model for consulting firms is to charge out professionals at three time their cost to the company and have little if any internal R&D. A software products company, by contrast, will spend upwards of 25% of its revenues on R&D, and will generate gross margins in excess of 90% and operating margins above 50%. Each one of these business models is described by the five dimensions listed above.

Further, by the turn of the millennium, investors also appreciated the potential of creating and scaling a new business model. In the computer industry, Dell had transformed the PC business with direct order efficiency and Ebay was taking its commissions in the new world of on-line auctions. Popular search engines, such as Google and Yahoo, were charging fees to "advertisers" who wished to be profiled on the results pages of matching Web searches. (Search for "fly rod" on Google, for example, and Orvis might be featured on the results page, even though thousands of other "hits" are displayed for the user's perusal.)

Just as there were positive examples, the disaster cases provided perhaps the most lasting impression of the importance of business models. During the latter part of the 1990s, a new breed of Internet companies flourished apparently unconcerned with operating margins. It seemed as if many entrepreneurs and investors alike had disassociated the income statement from the balance sheet. In the words of one venture capitalist, "earnings didn't matter." Companies losing enormous sums of money so long as revenues were growing were still being valued for the purposes of next stage investment or acquisition on extraordinary multiples of sales. In some cases, firms with minimal revenues and large operating losses had billion dollar market capitalizations.

The press and Wall Street searched for reasons to justify these valuations. They found entrepreneurs and investors backing plans built on the hope that if a company spent enough on marketing, it would grab enough "eyeballs" to justify hefty advertisement revenue, and eventually, E-commerce transactions, be it from consumers or business-to-business trade. Perhaps an odd and incomplete business model, but a business model nonetheless. Moreover, for a while, these business model themselves seemed to justify extraordinary valuations.[4]

In March 2000, it became clear how much Wall Street had based their support for Internet company valuations on a business model that said "If you spend enough on marketing, and grab enough eyeballs, sooner or later, earnings will come." The Internet bubble burst and the NASDAQ Composite Index declined over 67% from its high in March 2000 over next twelve months. The projected

4. Day, G.S., Fein, A. J. and Ruppersberger, G. (2003), "Shakeouts in Digital Markets: Lessons from B2B Exchanges", *California Management Review* 45 (2): 131-150.

P&L's of Web software and services companies that were so highly praised in 1998 – 2000, the ones showing earnings coming in 5 or 7 years down the road, were no longer found believable.[5] Indices that include primarily Internet or dot.com companies fell even more than the NASDAQ. The Interactive Week Internet Index declined over 80% between March 2000 and April 2001.

What follows is a fascinating and painful story of one firm's extraordinary rise and equally dramatic fall, and its search for a feasible business model where an attractive business strategy could actually be turned into operating income. The company has been known by various names: first Chemdex, then Ventro, and today, Nexprise. Each change of the company's name featured a different business model.

2. Chemdex: The Startup

Chemdex had many of the elements of a classic start-up story. David Perry and Jeff Leane founded the company in 1997. Perry had just received his MBA from Harvard Business School (HBS) and Leane was a former consultant for Andersen Consulting and a technology entrepreneur (Leane later left the company to pursue other interests). Perry had a B.S. in Chemical Engineering from the University of Tulsa and had been a supervisor at an Exxon Refinery before entering business school.

While attending business school, Perry had assisted two Harvard scientists in starting a biotechnology company. While involved in that start-up as Acting President, Perry discovered that the processes for purchasing lab supplies, and particularly complex specialty chemicals used in laboratory research, were based upon relatively inefficient paper, fax and telephone communications. He felt that by using the Internet this purchasing process and the market for these products could be made more efficient and benefit both the vendors and the purchasers. This was the "aha!" driving the new venture.

Perry and several classmates wrote a business plan for such a business that would use the Web as the supply chain for the biotechnology and pharmaceutical industries. The team named their company Chemdex and submitted their business plan as part of the First Annual HBS Business Plan Contest.[6] They were named a runner up in the contest. Perry then hooked up with Jeff Leane, and the two further refined the business plan leveraging Leane's industry expertise. Perry and Leane founded the company in September 1997.

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5. See for example: "The B2B Internet Report: Collaborative Commerce", Morgan Stanley Dean Witter, Charles Phillips and Mary Meeker, April 2000 ("Many B2B business models look suspect and most will probably fail…" page 4).
6. Described in "Chemdex.com", Harvard Business School Case 9-898-076, June 22, 1999, prepared by Senior Research Fellow Laurence E. Katz under the supervision of Professor William A. Sahlman and Lecturer Michael J. Roberts.

3. The Business Strategy and Its Business Model: A Life Sciences Online Marketplace, 1998-1999

Chemdex was one of the first business-to-business (B2B) exchanges. The specific application was a life sciences specialty chemicals marketplace. As pioneers Perry and Leane initially had difficulty raising capital for their new company. It was a new type of business, and his financial statements represented a new type of business model. However in September 1997, Perry raised seed funding of $560,079 from CMGI@Ventures, a venture capital firm that specialized in funding Internet-based companies, and Bob Swanson, the co-founder and CEO of Genentech, Inc. Swanson was a pivotal figure in the company's early success because Swanson's company, Genentech, became Chemdex's first major customer. Swanson himself was a legendary businessman. Many felt that he had "started" the biotech industry when he founded Genentech with Herb Boyer in 1976. At that time, Swanson was a 29 year old venture capitalist with Kleiner Perkins, which continues to be a leading venture capital firm. Kleiner Perkins became a major investor in Chemdex the following year in May, 1998.

It was not atypical for technological entrepreneurs to have a combination of large early customers as well as venture capitalists as first round investors. CMGI@Ventures was an aggressive early stage venture capital firm based in Massachusetts and an active participant in university business planning events and other related activities that enhanced its own "deal flow." CMGI continued to participate in subsequent financing rounds prior to the IPO. In fact, if it had not participated, new investors probably would not have participated in these rounds.

Swanson mentored Perry and created connections for Chemdex throughout the industry. Significant revenues also came from business directly with Genentech. By November 1998, Perry had a working Web-based system for specialty chemical ordering and fulfillment. Figure 1 opposite shows a representation of Chemdex's basic business strategy. With this strategy, a business plan, and a working prototype, Perry was able to raise almost $13 million from a syndicate of top-tier venture capital firms. Table 1 below contains a history of Chemdex's venture funding before the company's IPO. By April 1999, the total investment capital into Chemdex had grown to $45,224,784.

As a B2B exchange, Chemdex listed suppliers' products in an on-line catalog and allowed scientists and/or administrative staff to search and order these products through a secure, browser-based interface. The end user accessed the catalog, which was hosted and maintained by Chemdex at a site that Chemdex itself leased. Chemdex charged listing fees for a product in its on-line catalog as well as a sales commission for completed transactions. The company did not charge users to access the marketplace because it did not want to discourage volume.

Figure 1: The Initial Strategy - The Chemdex Marketplace

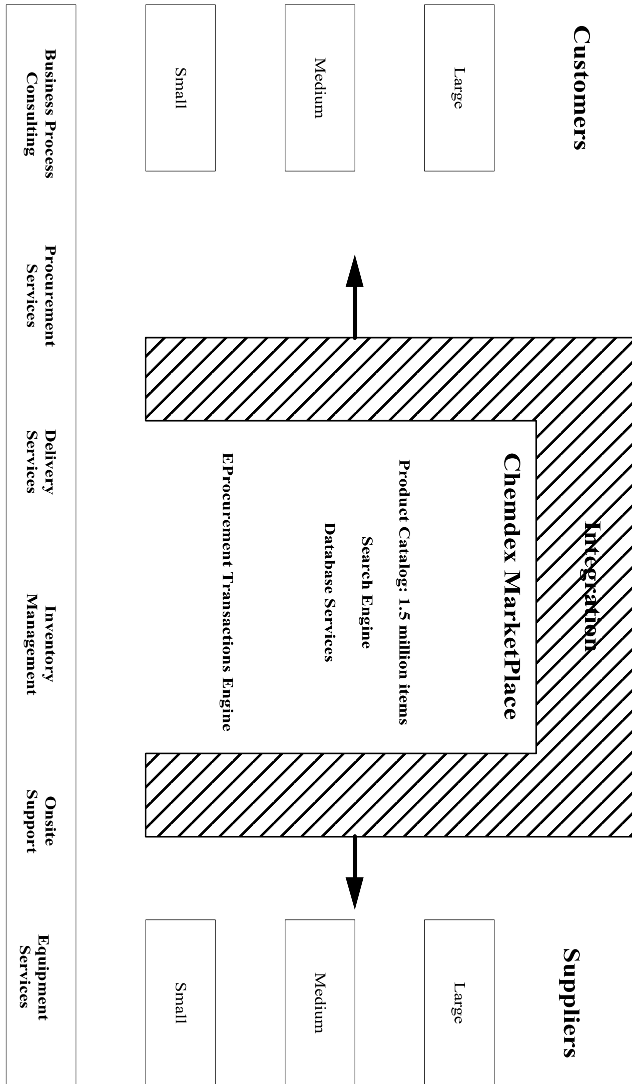

Table 1: Ventro/Chemdex's pre-IPO Funding

Date	Amount	Investors
September 1997	$560,079	Bob Swanson CMGI@Ventures
December 1997	$1,395,198	Bay City Capital Fund CMGI@Ventures
May 1998	$12,974,988	Kleiner Perkins Caufield & Byers Warburg, Pincus Ventures CMGI@Ventures Bay City Capital Fund
March & April 1999	$30,294,519	Galen Associates Kleiner Perkins Caufield & Byers Warburg, Pincus Ventures CMGI@Ventures Bay City Capital Fund
Total	$45,224,784	

The business model accompanying this strategy was that of a niche B2B exchange. In terms of revenue dimensions, the model sought to get as many customers as possible within the life sciences market. From these customers, the company targeted four distinct revenue streams: a 5% transactions fee on supplies purchased through the marketplace, systems integration fees for directly connecting large users' inventory and purchasing systems to the Chemdex marketplace, repackaging and reselling of customer data to chemicals manufacturers, and "placement fees" for chemical manufacturers who wanted to launch new products through Chemdex's Web site.[7] In terms of cost of goods, the company was spending heavily to integrate its major customer's (Genetech) internal systems with the B2B marketplace. In a race to build share, Chemdex was also marketing heavily while R&D expense also accelerated forward.

By the summer of 1999, Chemdex's marketplace for life sciences products offered 240,000 stock keeping units (SKUs). The company had $191,000 in revenue through 3/31/99 (though 82% of the company's revenues were from its first customer, Genentech) and an accumulated deficit of approximately $15.7 million.[8] Nevertheless, with the excitement over Internet and dot com stocks reaching a fever pitch, Chemdex's board decided to go forward with a public offering.

7. Chemdex.com, Harvard Business School Case 9-898-076, by William A. Sahlman; Michael J. Roberts; Laurence E. Katz, 1998.
8. Chemdex Corporation S-1 registration statement filed with the SEC on 5/14/1999.

Having major venture capital firms as investors – CMGI, Kleiner Perkins, Warburg Pincus – it was clear that Chemdex would seek a timely and successful "exit strategy" to provide a handsome return for these very investors. Of the two primary exit strategies, to be acquired or to go public, during 1999 IPOs provided the greater potential return for shareholders.

Chemdex completed its IPO on July 27, 1999, selling 7.5 million shares at $15 per share and raising $112.5 million in gross proceeds. In the first day of trading, the stock reached $34 a share, providing a market capitalization of $1.11 billion. CMGI an early and multiple round investor, that owned 16% of Chemdex at the time of the IPO, saw its holdings worth $177 million.[9] CMGI, being one of four professional firms that had invested a total of $45 million prior to the IPO, realized one of those legendary "15x pops" on an investment. To achieve this in just two years was extraordinary.

By March 2000, Chemdex had 95 enterprise (corporate) customers, with over 24,000 registered users, accessing almost a million stock keeping units (SKUs) in its electronic catalog.[10] The company would also issue corporate debt in March of 2000 of almost $250 million, even in a time when NASDAQ was tumbling in free-fall. Table 2 below contains the company's financial transactions post IPO.

Using proceeds from the IPO, Chemdex began to selectively acquire other companies. In September 1999, the company agreed to purchase another B2B marketplace that provided specialty medical products to hospitals (Promedix) for stock valued at $325.3 million at the time of the agreement. In December 1999, the company agreed to purchase SpecialtyMD, a provider of search and content functionality, for stock value at $107.7 million.

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9. William Barker, "Dueling Fools", the Motley Fool, August 4, 1999.
10. Ventro Corporation preliminary common stock prospectus, issued March 14, 2000, p. 41.

Table 2: Post IPO Financial History

07/27/99 Chemdex: Strategy: Build more branded marketplaces Strategy: Partner with other companies to create B2B marketplaces	IPO: $112,500,000 For 16% of company stock. Debt $250,000,000 $50,000,000 P&L loss.	Bought: Promedix: $325m SpecialtyMD: $108m Model: listing and transaction fees
03/01/00 New name: VENTRO Strategy: Leverage "platform" through partners		Model: franchise type sign up fee and revenue sharing
2/25/01 VENTRO Strategy: Sell technology & services to anyone wanted to build an on-line marketplace	Market Capitalization: 7,900,000,000	Valuation based on <$1m revenue, $600 million operating loss, and a business plan transitioning to Web marketplace infrastructure (Ariba) Model: license server software and tools, Web site development services
07/21/01 NexPrise Collaborative Software	$100 million cash on hand	Bought a Collaborative Software Company, NexPrise, $2.3 million in revenue, for $27 million. Model: License Server Software and Tools
01/01/04 New Strategy: Business process automation	Total assets: $20 million	Revenue: $4 million Model: License server software

4. A New Strategy to Scale the Initial Business Model: 2000

On February 22, 2000, Chemdex sought to continue to scale its strategy of owning and operating specialty exchanges. The company announced that it was repositioning itself as a "leading builder and operator of B2B marketplace companies." The Board changed the company's name to Ventro Corporation to emphasize its new strategy and financial goals, e.g. its new business model. Tables 3 and 4 below contain Ventro's income statement and balance sheet information for the years 1999 through 2002.

Table 3: NEXPRISE, INC. Income Statements (in '000s)

Period Ending:	**12/21/1999**	**12/31/2000**	**12/31/2001**	**12/21/2002**
Total Revenue	**30,840**	**0**	**1,042**	**2,802**
Cost of Revenue	29,306	0	797	2,393
Gross Profit	**1,534**	**0**	**245**	**409**
Operating Expenses				
Research and Development	17,734	35,030	24,580	5,295
Sales, General and Admin.	33,376	30,855	25,117	10,556
Non-Recurring Items	0	4,891	18,843	12,051
Other Operating Items	1,992	532	0	0
Operating Income	**(51,568)**	**(71,308)**	**(68,295)**	**(27,493)**
Additional income/expense items	3,163	(9,415)	(5,389)	(1,204)
EBIT	**(48,405)**	**(80,723)**	**(73,684)**	**(28,697)**
Interest Expense	168	12,813	5,646	749
Earnings Before Tax	(48,573)	(93,536)	(79,330)	(29,446)
Net Income-Cont. Operations	(48,573)	(93,536)	(79,330)	(29,446)
Discontinued Operations	0	(524,561)	0	0
Extraordinary Items	0	0	159,762	0
Net Income	**(48,573)**	**(618,097)**	**80,432**	**(29,446)**

Table 4: NEXPRISE, INC. BALANCE SHEET (in ‘000s)

Period Ending:	**12/31/1999**	**12/31/2000**	**12/31/2001**	**12/31/2002**
Current Assets				
Cash and Cash Equivalents	21,934	91,348	13,565	3,225
Short Term Investments	81,161	94,987	8,150	7,050
Net Receivables	12,414	4,269	814	560
Other Current Assets	5,041	21,923	1,642	1,512
Total Current Assets	120,550	212,527	24,171	12,347
Long Term Assets				
Long Term Investments	5,000	8,103	3,832	0
Fixed Assets	10,264	21,797	2,675	339
Goodwill	0	0	11,652	0
Intangible Assets	13,107	0	8,829	9,150
Other Assets	512	7,943	1,266	1,168
Deferred Asset Charges	14,500	6,938	200	0
Total Assets	**163,933**	**257,308**	**52,625**	**23,004**
Current Liabilities				
Accounts Payable	38,051	26,053	7,740	3,180
Short Term Debt	369	0	0	0
Other Current Liabilities	0	28,122	639	1,047
Total Current Liabilities	38,420	54,175	8,379	4,227
Long Term Debt	494	250,000	8,803	11,843
Other Liabilities	0	206	0	0
Total Liabilities	38,914	304,381	17,182	16,070
Stock Holders Equity				
Common Stocks	7	9	10	10
Capital Surplus	189,842	630,140	631,082	631,764
Retained Earnings	(57,465)	(675,562)	(595,130)	(624,576)
Other Equity	(7,365)	(1,660)	(519)	(264)
Total Equity	125,019	(47,073)	35,443	6,934
Total Liability and Equity	**163,933**	**257,308**	**52,625**	**23,004**

The new Ventro would now seek to provide services, technology and investment in multiple B2B marketplaces and estimated that it would have as many as 10 sites in place by year-end 2000. Aided by strategic partners, Ventro would expand beyond life sciences by creating a family of specialty on-line marketplaces. The business model would essentially be the same as that in the original life sciences chemicals marketplace, but scaled by creating addition marketplaces through a combination of internal developments, joint ventures, and acquisitions.[11] The software that Chemdex applied to its first marketplace became the "platform" from which other marketplace offerings were generated.

Chemdex continued to be the name of the company's life sciences products B2B marketplace. As the company stated in its Annual Report later that year:

> As a leading builder and operator of B2B marketplace companies, Ventro was created in February 2000 to leverage the corporate assets originally developed in its Chemdex life sciences business. Fueled by its speed of execution, scalability, technology architecture and operational expertise, Ventro is poised to transform the supply chain in businesses around the world. Ventro provides its marketplace companies with the ability to unite enterprises, buyers and suppliers to streamline business processes, enhance productivity and reduce costs. Ventro marketplace companies offer complete e-commerce solutions consisting of extensive online marketplaces, electronic procurement, the systems integration needed to interface with third-party and back-office systems, and comprehensive services and support. [12]

Wall Street and the press appeared to endorse Ventro's new business model. Ventro's stock price rose from $90 on 2/1/00 to a high of $240 on 2/25/00, giving Ventro a market capitalization of $7.9 billion! A Morgan Stanley Dean Witter report later that year stated:

> While the model is still evolving, we believe that Ventro's net market capabilities provide compelling value added, its management is top notch, it's got scalable, robust technology, and it has demonstrated that it can attract strong industry partners.[13]

A high-tech industry publication, *The Red Herring*, also wrote in March 2000 that:

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11. Some readers might find the far higher investment level required to build new marketplaces itself justifies calling this expansion an entirely new business model. However, we think not. The structure for producing revenue and operating marketplaces remained the same. The analogy is to a successful retail operation that figures out its business in its first pioneer store, and then raises capital to replicate its recipe for success through multiple store openings, e.g. Staples or the Home Depot.
12. Ventro Corporation 1999 Annual Report, p.1.
13. Morgan Stanley Dean Witter, Ventro Corporation stock note, Mary Meeker and Marie Rossi, July 21, 2000.

> Chemdex is a case in point [of vertical (industry-specific) marketplaces becoming horizontal (multiple industry) marketplaces]. Last week, while the NASDAQ traded in 100 point swings, the B2B chemicals exchange renamed itself Ventro and announced that it would change its strategy to operate a broad portfolio of B2B marketplaces. That's not only smart, it's brilliant. Ventro's goal is to evolve into four vertical markets, creating even more top-line opportunities in a business where, once scale is achieved, the operating margins within a B2B exchange become enormous.[14]

A reporter wrote:

> Chemdex/Ventro, having gone from vertical to horizontal, was valued at $7.8 billion, up more than $41 a share since Friday, February 25, alone. It represents the possibility for Internet investors of even higher valuations on these stocks. If any of the current or future B2B holding companies can truly execute and create the dominant exchanges in their verticals, $50 billion market caps might even seem like bargain-basement prices.[15]

Despite the turmoil in the stock market, Ventro continued to develop new B2B marketplaces, as its expanded business model required. A marketplace for general hospital and medical supplies (Broadlane) was created in December 1999 through a joint venture with Tenet Healthcare. A marketplace for fluid-processing plant supplies and equipment (Industria) was also formed in January 2000 with DuPont Corporation. A marketplace for the food services industry (Amphire) was also formed in April 2000 with a major food distribution company. In addition, Ventro announced the formation of Ventro Life Sciences Europe in April 2000 in order to expand its Chemdex life sciences marketplace into Europe. Finally, in August 2000, Ventro announced a joint venture with American Express Corporation (MarketMile LLC) to provide a marketplace offering general office supplies to small and medium-sized businesses.

While Chemdex, Promedix and Ventro Life Sciences Europe were wholly owned subsidiaries of Ventro Corporation, the company held only minority interests in its subsequent marketplaces. This was viewed internally and externally as a way to reduce Ventro's financial and operating risk in starting these new marketplaces. Ventro stated that each marketplace would only become profitable when it had 80% of the products end users wanted to buy in that niche, and the end users would only use the market when the products were there. Therefore, by partnering with industry participants, Ventro's new marketplaces began with a larger critical mass of buyers and/or suppliers than they would have been able to achieve on their own. These joint ventures also reduced Ventro's financial risk by having both industry partners and financial partners co-invest in these new marketplaces.

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14. *The Red Herring*, "When Verticals Go Horizontal," Peter Henig, 3/6/00.
15. *The Red Herring*, "When Verticals Go Horizontal," Peter Henig, 3/6/00.

5. A New Business Strategy: A B2B Marketplace Infrastructure Provider, 2001

Despite the initial excitement this new business model initially generated on Wall Street, and the new joint venture marketplaces Ventro announced throughout the year, the business was still bleeding cash. Wall Street had fundamentally changed, where future promises were being cast aside for present realities. Even though Ventro's overall loss per share had been better than Wall Street expectations, it would be reporting more than $93 million in operating losses for the year of 2000.

Further, during the third quarter of 2000, transaction volume and gross margins for Ventro's two existing, wholly owned marketplaces (Chemdex and Promedix) had not met Wall Street's estimates. The bloom was coming off the rose.

While Ventro management felt that in the prior year it had articulated a business model that moved the company beyond just the life sciences marketplace, virtually all operating revenues and profits still came from that first marketplace. Perhaps Ventro had not found the right strategic partners, or perhaps it lacked the operating knowledge required by these different vertical markets. Whatever the reason, these new niche marketplaces were not gaining traction. Management felt compelled to develop a new strategy.

Another option, of course, would have been to use cash on-hand to first reimburse debt obligations, and then, provide the remaining funds back to equity holders. Management teams with failed business models never took this dramatic step, however, unless absolutely forced to do so. Rather, they sought to create viable businesses with funds raised from successful IPOs and debt issues rather than cease operations and admit failure.

The company announced a new business model along with its third quarter 2000 results on October 19, 2000.[16] Ventro stated that its new business model was to become a "Marketplace Service Provider", or MSP. As an MSP, Ventro would provide technology and services to marketplaces, including the marketplaces currently wholly or partially owned by Ventro or, in the future, marketplaces in which Ventro held no ownership interest and was purely a provider of services and technology. In this new business model, the company would license its technology, typically with annual maintenance and support fees, to other companies seeking to build their own on-line marketplaces. Ventro would become a tools provider. The advantage, just like any other software tools provider (such as Oracle) was the applications development productivity that this new set of customers could enjoy by deploying Ventro's tools for their own Web site development. This advantage could be substantial given the complexity of the task.

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16. Ventro Corporation press release, 10/19/00.

Like other tools vendors, Ventro also planned to charge its new customers for professional services. In other words, Ventro would help its customers develop their own marketplace Web sites, and integrate these with corporate and other types of databases.

This new strategy was a Web infrastructure play. Ventro would no longer own its own on-line marketplaces, but rather, help other organizations to build their own respective marketplaces. Ventro Chief Operating Officer Robin Abrams noted the change in approach, stating "Owning was fundamental to the way we viewed ourselves in the market, but that's not the case anymore."[17]

Management could take comfort that other companies appeared to be doing well as Marketplace Service Providers, i.e. selling tools for transactional Web site development and helping customers use these tools. Companies considered as players in this space included software providers Ariba, Commerce One, and Purchase Pro. They also included established IT service providers like IBM Global Services, EDS, and CSC, as well as newer Internet-oriented IT service providers such as Scient, Viant, and Sapient. In July 2000, Scient, for example, had a market capitalization of $3.5 billion on annual revenues of approximately $300 million and an operating loss of over $20 million.[18] This was unprecedented for what was essentially a consulting firm with little intellectual property. In September 2000, Ariba had a market capitalization of $41 billion on annual revenues of less than $400 million.

There were obstacles however. A look at the backgrounds of executives who worked for Ventro at that time showed that the existing leadership team had little or no experience making general software tools.[19] Also, the company's Chemdex marketplace technology was the result of proprietary code and business processes linking over 20 third party software products. The end-result was not easily "modularized" or "packaged" into code that could be sold as a software license (as Ariba and other e-procurement software providers did with their software). Therefore, the R&D to transform a complex application (the Chemdex marketplace) into a robust and flexible toolkit (the new MSP strategy) would be both extensive and costly.

Also, while some managers felt that the company's original business model was fundamentally unsustainable, and therefore had both a sense of anxiety and urgency to establish a better strategy for the company, this conclusion was not a broad-based consensus. CEO Perry described his opinion in May 2001:

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17. *Upside*, "Inside Ventro: A costly lesson," Daryl Carr, 1/6/01.
18. All market data and company financial data used in this paper is from Yahoo!Finance or Multex.com, unless noted otherwise.
19. The CEO had a chemical engineering background and had worked for Exxon prior to business school, the CFO came from the biotech industry, the COO came from the computer hardware industry, and the Chief Technologist/CIO came from the internal IT department of a major brokerage firm.

> It's not that we thought we could never get Chemdex to be profitable," says Ventro's CEO, Dave Perry. "It had been growing at 20 percent to 30 percent per quarter. But it was burning a lot of money. We decided that, in an environment where raising capital is difficult, it wasn't where we wanted to spend the fixed amount of money we have.[20]

Six days after reporting its third quarter results, Ventro issued a press release about its MSP strategy and posted a presentation describing its MSP business model to its Web site. The company stated that:

> The opportunity for Marketplace Service Providers remains large, with over 1,500 current marketplaces. Currently, B2B marketplaces spend between $10 - $25 [million] annually on technology, including software, hardware and consulting. Ventro sees an opportunity to target significant margins from the portion of these services addressed by its Marketplace Service provider offering. [21]

Ventro also announced that since it had decided to concentrate on revenues from providing technology and services, it intended to seek strategic partners for or sell its wholly owned marketplaces (Chemdex and Promedix).

The company stated that "changing to the Ventro Marketplace Service Provider model, whereby Ventro reduces its wholly-owned interest in Chemdex and Promedix, is expected to reduce Ventro's cash burn, accelerate the path to break-even, and improve gross margins. The timing of any financial improvements is not possible to predict given current uncertainties."[22] This was something of a shock to some observers, since Chemdex had been the company's only source of operating revenues and profits.

These announcements and press releases did not halt further declines in the company's stock price, which dropped from $8 at the beginning of October to $1 by the end of the year, giving Ventro a market capitalization of $46 million.

On December 6, 2000, Ventro announced a restructuring whereby it shut down its Chemdex and Promedix marketplaces. Management and its investment bankers had not been successful in finding a buyer or strategic partner for either marketplace. The company said it expected to record aggregate restructuring charges of approximately $380 to $410 million in its fiscal year-end results in connection with these activities, which would include an estimated reduction of approximately 235 personnel (out of total headcount of over 400).[23]

On February 20, 2001, Ventro announced its fourth quarter 2000 net loss was $451.6 million and that its total net loss for the twelve months ended 12/31/00 was $618.1 million. Ventro also announced that its Chief Operating Officer,

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20. *Upside*, "Who will survive?," Stan Draenos, 4/17/01.
21. Ventro Corporation's "Marketplace Service Provider October 2000 Briefing" at http://www.ventro.com/ir/0010_briefing/index.html
22. Ventro Corporation's "Marketplace Service Provider October 2000 Briefing" at http://www.ventro.com/ir/0010_briefing/index.html
23. Ventro Corporation press release, 12/6/00.

Chief Financial Officer,[24] and Vice President of Marketing had given the company notification of their intended departure by the end of the first quarter of 2001.

The Board also decided to use the company's cash to clean up its balance sheet. It announced that Ventro was tendering all its outstanding convertible notes at a price of $270 in cash per $1000 principal amount.[25] The notes had recently been selling at prices as low as $160 per $1000 principal amount due to Ventro's problems and the fact that the strike price ($90.78) at which the notes could be converted into Ventro common stock was far above the current stock price (approximately $1).[26] On March 28, 2001, Ventro announced that it had purchased approximately 74% of its outstanding convertible notes pursuant to its tender offer.[27]

On April 30, 2001, Ventro announced its first quarter results. Excluding the gain from its purchase of its convertible notes, the company lost $28.8 million. The company also announced that it would be reducing its workforce by two-thirds, to 85 employees, and taking a further charge of $10 - $20 million in the second quarter of 2001 to reflect this and other restructuring activities. Perry's comments in the press release suggested that Ventro might adopt a new business model in the future:

> During the quarter we made progress towards defining our target market and thus, our future business model. We ended the quarter with approximately $96 million in cash and investments, which, together with the $11 million Broadlane note receivable [Ventro had settled various disputes with Broadlane and received this note as part of the settlement], provide adequate funding to execute on our business plan. Additionally, we are continuing to focus on streamlining our organization to fit the needs of our transitioning business model; we expect to reduce our ongoing operating cash expenses to less than $7 million per quarter, once our restructuring actions are completed.[28]

Uncertainty was pervasive within the company. The entire original senior management team had left the company as of April 1, 2001, except for the CEO. The company's headcount fell from over 400 at its peak to a stated objective of 85 by the end of the second quarter of 2001. These actions clearly were an enormous burden on the Ventro employees' professional and personal lives.

If it was of any comfort those who remained with the company, Ventro's major competitor as an MSP infrastructure provider, Ariba, was suffering extremely hard times, too. In the first week of April 2001, Ariba announced a loss of $0.20 per share for the second quarter vs. Wall Street expectations of earnings

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24. That Chief Financial Officer was one of the authors of this case.
25. Ventro Corporation press release, 2/20/01.
26. Per conversations the author had with a convertible debt trader at DLJ Securities during December 2000.
27. Ventro Corporation press release, 3/28/01.
28. Ventro Corporation press release, 4/30/02.

of $0.05 per share. Revenue for the quarter was approximately $90 million, half of what had been previously forecast and down 47% from the first quarter. Ariba also announced reductions of one third of its workforce (700 people), write downs for real estate investments and other items of $50 - $75 million, and the collapse of its deal to buy collaborative software provider Agile Software. Keith Krach, Ariba's CEO, said "The [B2B] exchange business ... has seen a dramatic falloff, and we don't think there'll be a recovery in marketplace revenue."[29] Ariba's market capitalization sank to $1.1 billion, compared to $41 billion on annual revenues of $400 million in just six months earlier.

6. Another Business Strategy: Client Server Collaborative Software, mid-point 2001

Figure 2 below shows the dramatic rise and fall of Ventro's stock price over the course of three years. With its stock price was battered to less than a dollar per share by the summer of 2001, Ventro management changed the company's business model yet again. Sitting on almost $100 million in cash, management decided to transform itself into a more traditional software company, seeking a more traditional stream of earnings.

On July 16, 2001, Ventro announced that it would acquire NexPrise, a software firm that develops product design and engineering, complex procurement and strategic sourcing tools. Its business was and remains collaborative computing within and between organizations. Ventro paid $27 million for NexPrise, which had 110 employees and $2.3M in annual revenues. Ventro also formally changed its name to Nexprise.

Customers license this enterprise collaborative computing software, and in certain instances, pay Nexprise fees for systems integration and training. It is a highly complex field of technology, with major firms such as Documentum (now owned by EMC) and IBM (Lotus Teamroom) pursuing the same target user. This new strategy requires continued and substantial investments in R&D, as well as a direct sales force to penetrate large corporate accounts. For the year ending December 2002 NexPrise reported revenues of $2.6 M and a loss of $29M, $11.6M of which was a write down of goodwill.

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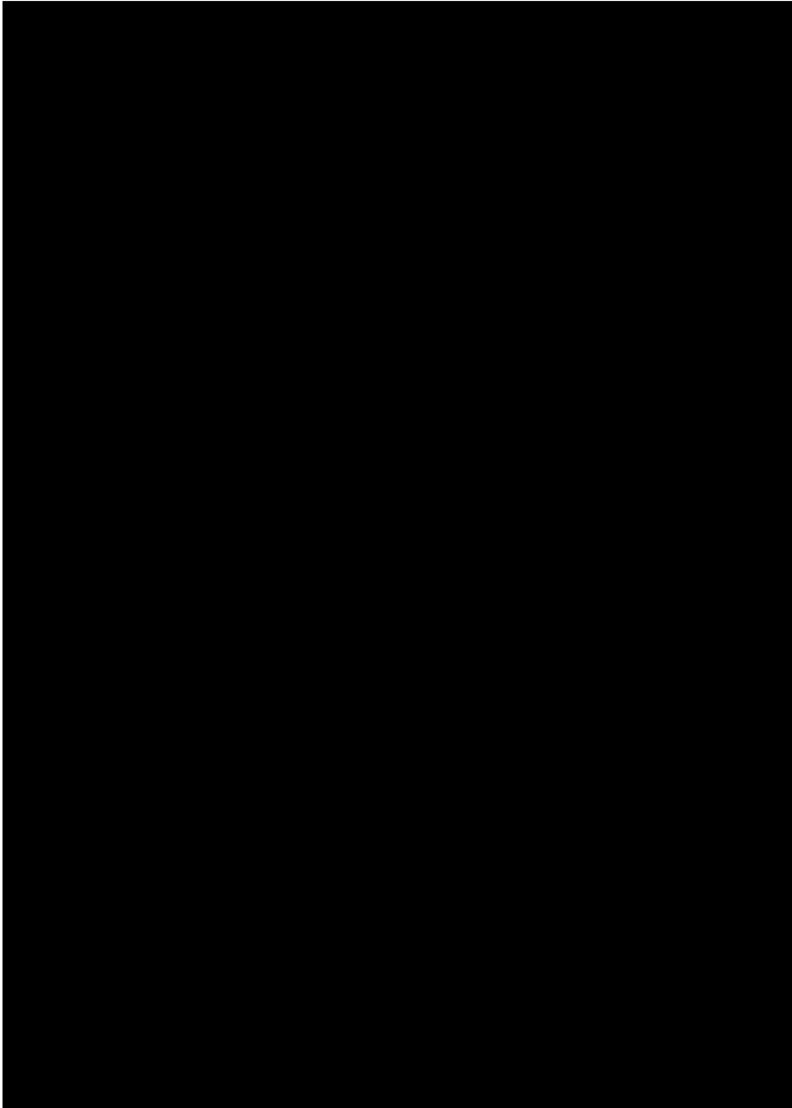
29. *Upside*, "Ariba Falls Hard, Fast", J.T. Farley, 4/3/01.

Figure 2: The Roller Coaster Ride: Ventro/Nexprise's Stock Price



7. Looking Back at It All: Circa 2004

A group of former Chemdex/Ventro employees were sitting at a bar in California, contemplating the roller coaster that they had experienced over the past several years. Few would disagree that Ventro Corporation's management, employees

and shareholders required a new business model for the company as it navigated the turmoil in the B2B space in 1999 – 2001.

However, the question that kept bothering everyone was whether management, investors, and they themselves as options holders had all been collectively too greedy. Should the company have gone public, on revenues of less than $200,000 and significant losses? That IPO and the subsequent $250 million convertible debt put the company on a stage where it was not prepared to act.

Upon going public, especially after having been underwritten by some of Wall Street's most prestigious investment banks, Ventro underwent the typical scrutiny of analysts, investors and the press that public companies can expect.[30] Ventro received even more attention than most other Internet companies, since it had a photogenic and charismatic CEO and was in a space (B2B marketplaces) that was briefly valued at astronomical levels by investors. Since stock prices inherently reflect investors' future expectations for a company, there was substantial pressure for Ventro management to reflect continued progress and a detailed and realistic path to profitability when it communicated externally. However, Ventro was still very much in start-up mode. In fact, on Ventro's conference call with analysts on April 30, 2001, Perry stated that Ventro was essentially a start-up (again), and pointed out that its market capitalization was only about one-third of its cash balance.[31]

Clearly, being public creates additional challenges for a company seeking to change its business model. When AT&T started acquiring cable companies and wireless communications companies under its new CEO, Michael Armstrong, for tens of billions of dollars in 1997, some analysts pronounced the strategy as misguided, but overall Wall Street and the press supported Armstrong's initial acquisitions. Ultimately, the detractors were proven right.[32] If a large company had trouble changing business models, for a company like Ventro, with a limited and relatively unsuccessful operating history, the challenge was even greater.

These changes had been hard on the former employees sitting at the table. Ventro could ill afford extensively cataloging its problems and challenges in public. Ventro employees were unsure whether the public pronouncements of Ventro's new business model as being "evolutionary, not revolutionary", and the listing of corporate assets Ventro had in-house, were entirely accurate, or produced primarily to comfort Wall Street.[33]

All agreed that both Ventro and Ariba had suffered cruelly as Web infrastructure suppliers. Would Ventro have been better off sticking to its guns

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30. Chemdex's IPO was underwritten by Morgan Stanley Dean Witter, BancBoston Robertson Stephens, and Volpe Brown Whelan & Company. The company's convertible debt offering in April 2000 was underwritten by Morgan Stanley Dean Witter, Robertson Stephens, Chase H&Q, and Deutsche Banc Alex Brown.
31. The conference call is available at www.streetfusion.com.
32. AT&T's stock price declined from a high of $96.125 during the initial years of Armstrong's tenure (January 1999) to $21.98 on 5/17/01.

in 2000 and remaining as an owner/operator of specialized B2B marketplaces? Some former managers in the company even thought that the company should have stuck to its first life sciences market strategy of 1998-1999, finding new ways to create value-added services for that sector. Even though the IPO had originally achieved enormous high valuations, it had also raised expectations to an unrealistic level and hurt the company's ability to patiently pursue a focused growth strategy.

33. See for example Ventro Corporation's press release on 10/25/00 ("Ventro Provides Details About New Strategic Direction"), where CEO Perry stated, "Our move toward a MSP model is a natural evolution as we continue to leverage the core of our capabilities."

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