Competitive Analysis

Benchmark Acquisition Bolsters Quantum Competitive Position

Abstract: Quantum’s acquisition of Benchmark should improve its competitive position in the tape drive and automation industries. However, Quantum will face many challenges in integrating the companies.

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Strategic Planning Assumptions

The acquisition of Benchmark will bolster Quantum's competitive position in the midrange tape drive market, but it will not return Quantum's revenue to the level that it had for its DLTtape drives in 1999 (0.8 probability).

Quantum is highly motivated to make this acquisition succeed, and customers and competitors should assume that it will be a success (0.8 probability).
Introduction

Quantum recently acquired Benchmark Storage Innovations, a company that it licensed technology to in 1998 and in which it owned a minority share. Before examining why Quantum would make this move and how it will affect Quantum, Benchmark, its customers and the market in general, a little background and historical information on the two companies and their product lines is in order.

Back to the Future

In early 1996, Quantum began the development (at a research and development [R&D] facility in Louisville, Colorado) of a Valueline series of its DLTtape products. Quantum's intent was to develop lower-cost drives, which would enable it to expand the market for its DLTtape technology by moving it into markets in which 4mm Digital Data Storage (DDS) and 1/4-inch data cartridge drives were dominant. However, in the following years, Quantum recognized that it had to focus its R&D resources on the development of its first-generation Super DLTtape (SDLT) products. As time moved on, it became clear that by the time the Valueline drive could be brought to market, the original design would no longer provide it with the specifications that would allow it to become a competitive force in the market. In early 1998, Quantum licensed certain patents and technology to Benchmark, and Benchmark was founded in May 1998 with headquarters in Boulder, Colorado. Included in the agreement was the transfer to Benchmark of product designs, product hardware and software, and manufacturing tools. Benchmark, originally called Benchmark Tape Systems, was founded by Jesse Aweida and Lew Frauenfelder, and the initial financing (US$4 million) for the company came from Aweida Ventures Management. In return for the technology license, Quantum retained a 20 percent minority ownership position in Benchmark. The Quantum Valueline technology formed the base for the tape drives that Benchmark would bring to market. However, Benchmark enhanced and built on this technology by incorporating a two-channel magnetoresistive recording head, a soft-unload capability to make it more automation-friendly and a tape path that was different from Quantum's other tape drives. Other enhancements to the original technology included TapeSense circuitry, which is a firmware capability intended to detect whether engagement of the tape leader has properly taken place when a cartridge is inserted into the drive. Benchmark focused on lowering the product cost of its drives through a low parts count and simplicity of design, and the company introduced its first drive, the DLT1 drive, in September 1999 and hailed it as a product with "the power of DLT at the price of DDS."
Quantum has decided to take back the technology it once relinquished, along with the enhancements that have been made and the products that have evolved from it. On 5 September 2002, Quantum announced that it had signed a definitive agreement to acquire Benchmark. The deal closed on 13 November 2002. Under the terms of the agreement, Quantum acquired all of Benchmark, including its tape drive and tape media products, which are being integrated with Quantum's DLTtape Group. Quantum already holds a 20 percent interest in Benchmark, and it is paying the other equity holders a total of approximately 13.1 million shares of Quantum stock and US$11 million in cash. Based on Quantum's closing stock price of US$3.05 on 12 November 2002, the deal is valued at US$50.955 million. An additional 1.8 million shares of Quantum stock will be distributed to Benchmark's shareholders if the DLTtape Group achieves certain performance milestones with the Benchmark product lines during the first year after the completion of the acquisition.

Gartner Dataquest Perspective

Despite the difficulties that a startup in an already crowded tape market must overcome, it certainly appeared that Benchmark was on track to achieve the dreams of its founders and become a success in the market. In its four-year existence, Benchmark's engineers had managed to bring out three tape drive products. Benchmark's first tape drive, which was about two-thirds of the height of a full-high, 5.25-inch drive, had a native capacity of 40GB and a data transfer rate of 3 MB/sec. The company subsequently launched a half-high version of this drive in April 2001. This drive was called the ValuSmart Tape 80, and with its introduction, the company introduced the ValuSmart (VS) name as its new brand. The brand was intended to clearly position the Benchmark products in the "value" segment of the market, and it was also intended to enable the company to establish its own identity and eliminate confusion in the market between the Benchmark-designed and -manufactured products and those designed and manufactured by Quantum. Benchmark's third tape drive, the ValuSmart Tape 160, was announced in June 2002. Still with a half-high form factor, the VS 160 doubled the capacity of the previous drive to 80GB, and the data transfer rate was more than doubled to 8 MB/sec. The DLT1 drive and VS 80 drive use the same DLTtape IV media that is used with the Quantum DLT 4000 and DLT 7000/8000 drives but in conjunction with the VS 160 introduction. Benchmark introduced its own tape media, which it co-developed with Sony. In addition to tape drives, Benchmark had introduced a two unit (2U)-high, eight-cartridge autoloader called the ValuSmart Tape 640 Blade, which uses the Benchmark drives. This autoloader was co-developed with BDT of Germany. Benchmark was also shipping this product to Dell with a Linear Tape-Open (LTO) tape drive integrated with it. In May 2002, Benchmark introduced a 1U-high rack-optimized tape enclosure, called the ValuSmart Rack 1, which holds two half-high SCSI tape drives. This product was being shipped with the company's VS drives as well as with DDS-4 drives.
The cornerstones of Benchmark’s corporate strategy — from the beginning — revolved around keeping its head count low, maintaining an entrepreneurial attitude that would allow it to move quickly, focusing on its core strength in tape technology, outsourcing wherever possible and concentrating its marketing efforts on the OEM channel. The guiding principles of this strategy were to keep developmental and selling, general and administrative (SG&A) expenses down and use the strengths of other companies with expertise in areas such as manufacturing and product test and for selling to non-OEM channels. Benchmark had chosen to focus its selling efforts on the OEM channel, and it had garnered OEM wins for its drives and autoloader products with major server OEMs including Dell Computer, Hewlett-Packard and IBM. Other customers included Tandberg Data, Overland Storage and ADIC. Quantum was also reselling the Benchmark tape drives under its own brand and its Storage Solutions Group (SSG) was selling a version of its SuperLoader product, which contained the Benchmark drive.

In 2000, Benchmark shipped nearly 22,000 tape drives and increased this number more than fivefold in 2001 to 115,200. Its drive shipments in the first three quarters of this year were just over 100,000 units. The third quarter represented a record quarter for drive shipments, and Benchmark was on track to ship about 140,000 drives in 2002. Autoloaders, which had just begun to ship to OEM customers in February and March were at nearly 7,000 units at the end of the September quarter. Autoloader units for 2002 are expected to exceed 9,000 units and are likely to approach 10,000 units for the year. In addition, the rack-optimized tape enclosure was beginning to find good market acceptance. Revenue for 2001 was more than US$70 million, a 350 percent increase over 2000, and the company recorded its first profitable quarter in the March 2002 quarter.

Following the initial US$4 million first round of financing from Aweida Ventures Management, Benchmark had obtained a second round of financing in March 1999 of US$7.5 million. The contributing parties to this second round were Aweida Venture Partners, Quantum and Read-Rite. Benchmark’s third round of financing, to fund working capital in support of its product ramp with major OEM customers, came in November 2000. At that time the company secured US$40 million, and ADIC, Lafe Holdings, StorageTek and some individual investors joined Aweida Venture Partners and Quantum in this third round of financing. Through all three rounds, Aweida Venture Partners remained the majority investor in Benchmark, and Quantum’s participation in each of the rounds allowed it to maintain its 20 percent interest in the company.

By all indications, Benchmark had a winning strategy at the corporate and product levels, and its sales and marketing efforts were clearly paying off, as evidenced by its significant OEM wins and the excellent product acceptance across its line of products. This leads one to ask: Why did Aweida Venture Partners and Benchmark’s board of directors decide to sell the company, especially when it appeared that Benchmark had turned the corner toward profitability, and demand for its products was on the rise?
The original plan of its founders was to enhance the technology acquired from Quantum, build the company to a level in which it had achieved good market acceptance for its products and then sell it to another company. No progress was made on this front in 2000 and 2001, and an IPO was something that was being considered. But unfortunately, the bursting of the dot-com bubble in 1999 and 2000 resulted in investor skepticism in startups across the board. In addition, the reduced valuation of the majority of high-tech companies during the past two years, as well as an economy that is showing no signs of a near-term turnaround, has combined to create a situation in which a lucrative IPO for Benchmark's investors looked implausible, at least in the near term. Gartner Dataquest also believes that although Benchmark had become profitable, the company would have required additional financing to continue its growth and advance its product line. Therefore when Quantum approached Benchmark this year with an interest in acquiring the company, we think Benchmark's board of directors reached a decision to sell at that time. Because Quantum already held a 20 percent interest in Benchmark and its SDLT drives have been designed to read cartridges written by the Benchmark products, Quantum was predisposed as a most appropriate and logical candidate to acquire the company. Even if Quantum's stock price fell after the decision to sell was made, the shareholders could still recoup most or all of their investment. They would then have to gamble that the infusion of Benchmark products into Quantum's product line, the restructuring actions under way at Quantum, and a turnaround in the economy would eventually stimulate Quantum's stock price so that the investors and shareholders could, in the long run, achieve a profitable return.

What's in It for Quantum?

Gartner Dataquest believes that Quantum's decision to acquire Benchmark was based on defensive and offensive motivations. During the past three years, shipments of DLTtape drives (from Quantum and Tandberg Data) have declined from a high of 472,880 drives in 1999 to 467,847 in 2000 and 328,355 in 2001. Meanwhile, Quantum's revenue from tape drives has dropped from US$858 million in fiscal 2000 to US$754 million in fiscal 2001 and US$448 million in fiscal 2002 (Quantum's fiscal year ends in March). Granted, some of this loss of revenue went to Quantum's DLTtape drive licensee, Tandberg Data, and Quantum has lost market share in the high end of its product line to LTO drives. Although Benchmark had attempted to position its products as competing for the DDS market, its drive-pricing had never been low enough to effectively penetrate that space, and sales of the Benchmark drives were cannibalizing sales of Quantum's low-end DLTtape products more than they were impacting any other technology. With the last shipments of the DLT 4000 in 2002 and with DLT 8000 drives likely to reach end-of-life in 2003, Quantum was faced with having no product that could effectively replace these drives and infuse the low end of its drive product line. On the automation side, SSG was also seeing its revenue decrease, partly because of a significant decline in autoloader shipments during the past two years. Even though SSG had added the SuperLoader product to its automation product line in
early 2002, this autoloader carries too high of a price to have a significant impact on the autoloader market, in which a low product price is at the top of the buyer’s selection criteria. And because of Benchmark’s decision to introduce its own media for the VS 160 product line, Quantum would eventually have seen a loss in revenue from tape cartridge sales as well as in royalties from tape cartridges. A decline in tape cartridge sales and royalties would subsequently affect the DLTape Group’s business model and have a negative effect on its profitability. It is logical to assume that Quantum had been looking for ways to reverse this downward trend, and the acquisition of Benchmark provided the potential to increase drive and automation shipments and positively affect the company’s revenue.

On the offensive side, the acquisition of Benchmark provides Quantum with a way to extend its available market and allows it to reclaim a portion of its lost unit shipment market share in the midrange tape drive market and in automation. Because Quantum did not have a replacement for the DLT 8000 in the works, the Benchmark tape drives can immediately fill a void in Quantum’s tape drive product line, and its autoloader will fill out the low end of SSG’s automation line with a low-cost autoloader offering. The addition of the Benchmark products will bolster Quantum’s road map in midrange tape and provide it with the ability to improve its competitive position by offering customers more of a one-stop shopping experience. And as an added bonus, the Benchmark products move over to Quantum, with some large customers already in place. Benchmark’s focus on the OEM channel resulted in the company having only a small portion of its sales to the distributor and value-added reseller channels. Quantum does have part of its sales force dedicated to reseller channels, and by broadening the channels that the Benchmark products are sold to, Quantum should theoretically be able to increase shipments of the Benchmark drives beyond what Benchmark could have done on its own.

The Challenges Ahead
The main challenges that Quantum faces in folding Benchmark and its products into Quantum lie in three main areas: the merging of two companies with disparate cultures, the potential for a loss of momentum in product shipments, which often happens when two companies come together, and the merging of the actual product lines and product road maps into one that is credible and acceptable to customers. In many ways, these areas are inherently linked and dependent on one another.

When Quantum initially made its decision to acquire Benchmark, Gartner Dataquest was under the impression that the company was primarily interested in acquiring the Benchmark engineering team and the low-cost products and technology that its engineers had developed. If this had happened, the outlook for success in combining the companies’ cultures and avoiding a loss of product momentum would have been slim. It is highly possible that some customers that were accustomed to doing business with Benchmark and its sales and marketing people could have been lost. Quantum had the foresight to realize that the success that Benchmark had achieved was attributable not only to good engineering and product design but in Benchmark’s marketing and sales teams’ role in
winning customers, maintaining customer relationships and propelling sales as well. As it turned out, more than 70 of the 110 people employed by Benchmark become part of Quantum. On the engineering side, the entire Benchmark engineering team, with the exception of Benchmark's executive vice president (VP) of engineering, moved over to Quantum. Quantum also hired Benchmark's VP of operations to become its VP of operations for the DLTtape Group.

In the sales and marketing area, most of the people from Benchmark become part of Quantum's DLTtape Group, most of whom were hired at the expense of a Quantum person being terminated. Benchmark's executive VP of sales and marketing was selected to become Quantum's VP of marketing for the DLTtape Group, and she brought most of her team from Benchmark with her. This means that, in most cases, Benchmark tape drive customers will be able to continue to work with the same people they worked with before the acquisition, and this should help prevent a loss of product momentum. One exception to this will be for customers that are purchasing the Benchmark autoloader because this product is being integrated with the SSG ATL automation system product line. Customers that previously worked with the same account people for Benchmark tape drives and its autoloader will have to work with two different account teams — one in the DLTtape Group and another in SSG. While it is logical that the autoloader should be melded with the Quantum automation product line, Quantum must find a way for a single team to be able to deal with customers for the drives and the autoloader products. Perhaps the company should consider more consolidation of its separate sales and support teams in the drive group and SSG.

It is worth noting that, to Quantum's credit, it is bearing the expense of severance costs for Benchmark employees that are being laid off because of the acquisition.

Even though Benchmark's employees have generally worked for companies as large as, or larger than Quantum in the past, they have become accustomed to working in a startup environment in which decisions are made quickly and where there are fewer layers of management. Because Quantum is in the process of restructuring and implementing cost-cutting measures in several areas, it can in fact be viewed as a company in a "turnaround" mode. Quantum should capitalize on this opportunity to develop its own startup mentality and examine and modify any internal processes and structure that may prevent it from providing a timely response to customer and market requirements.

Quantum plans to continue to manufacture the Benchmark products through Benchmark's outsourcing partners, Mitsumi Electric and Beyonics Technology. This should help prevent a loss of product momentum because customers can be assured that they will continue to get a steady supply of products, and they will not have to qualify another manufacturing source.
In the media area, Quantum has decided to continue with the media that was co-developed by Sony for the VS 160. Had the company decided to revert to its DLTtape IV media for this drive, it would have had a major impact on the potential of the VS 160 by slowing its time-to-market. It would also have impacted the ability of the Benchmark products to further advance in capacity and performance.

Once the DLT 4000 and DLT 8000 are out of the picture, no direct overlap will exist in the product lines of the two companies. Any perceived overlap between the high end of the VS products and low-end SDLT products can be overcome with the right pricing strategy and by ensuring that the Benchmark products remain positioned in the value segment of the market. Quantum can be expected to attempt to leverage from the designs of the SDLT and VS products to improve and lower the cost structure of its entire product line. If it can do this, the result should be a company that is better positioned competitively. The bigger issue that Quantum faces, from a product road map perspective, resides at the high end in competing against LTO. In the September quarter, Quantum grew SDLT drive unit shipments 20 percent quarter over quarter, and by every indication, the company is gaining some ground against LTO with the addition of the higher-capacity SDLT 320 drives. However, the SDLT road map that Quantum has been driving to will only keep it in the same "leapfrog" situation that it already finds itself in — it moves ahead of LTO for a time, but then the LTO companies come out with a next-generation product that moves LTO ahead again in capacity as well as performance. Gartner Dataquest is aware that key people from Quantum and Benchmark began working on product road map issues weeks before the acquisition was set to close. We are confident that from a strategic and marketing perspective, Quantum is aware of the issues and is moving quickly to resolve problems in this area and provide its customers and prospects with a more competitive product road map.

**Bottom Line**

There are few examples of two companies merging when "1 + 1 = 2" or, in this case, when the acquisition of Benchmark will return Quantum to the same level of revenue that it had in 1999. The acquisition of Benchmark by Quantum is not expected to be an exception to this rule. Gartner Dataquest is forecasting healthy unit and revenue growth for the Benchmark tape drives during the next five years. But even if the volume of the Benchmark drives could reach the levels of the combined DLT 4000 and DLT 8000 unit shipments at their high mark (which was 472,880 in 1999), the lower prices of the Benchmark products would still result in lower overall revenue. To advance revenue to past levels with the new product lineup, the cost of the Benchmark drives would have to drop enough to allow them to move into the DDS market and thus markedly propel shipments of those drives. And with the competition from LTO at the high end of the product line, the level of competition on drives in that arena is bringing pressure on the pricing of the SDLT drives. Gartner Dataquest is however very optimistic for the future of 2U-high, low-cost autoloader products, and the Benchmark autoloader, if accompanied by the right sales and marketing tactics, has the potential to exceed SSG's past revenue for autoloader sales.
Having said that, the addition of the Benchmark products will breathe new life into Quantum's drive and automation product lines. Quantum is acquiring not only products but also talented people with engineers that can design low-cost products as well as marketing people that can bring new ideas and a different way of thinking to the company. While it may seem strange to think of a company as having a personality, Quantum should use this acquisition as an opportunity to transform its personality, eliminate any semblance of the arrogance that it exhibited in the past and become a leaner, more customer-focused company.

Customers and the competition must understand that Quantum is highly motivated to make this acquisition succeed. Benchmark will benefit by being part of a company with strong brand recognition and sufficient cash to move it forward, and Quantum will have a more formidable product line. And even though we must wait to see the execution details, the signals to date indicate that the company is doing most of the right things to remove the barriers that would prevent this acquisition from succeeding.

**Key Issue**

How will mergers, acquisitions, partnerships and alliances change the competitive climate of various storage markets?