



Sigma Summaries

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Our colleague, Ken Bernard, spent time in January 2005 at the Consumer Electronics Showcase in Las Vegas, Nevada. Since we rely on our own research here at Sigma Investment Counselors to make investment decisions for our clients, we think that it is critically important to attend these types of conferences to get the pulse of the industry. Ken shares some insights from his trip in our Sigma Summaries this month

Searching for Lasting Value

Everyday, it seems, we witness new products released as a result of technology innovation. Camcorders, flat screen televisions, cell phones, music players – the list goes on and on. Consumers have shown a willingness to purchase these new products, as consumer electronics spending, according to the Gartner Group, has grown an average of 13% over the last five years. Each week another company has the latest and greatest cool stuff, but this means that by next week their offerings may be passé. In this environment, which companies can make money consistently?

Economists have long written about the phenomenon of creative destruction, in which the leaders of an industry are hard-pressed to change, because change means tearing down their current advantage. Even as these leaders cling to their current technology or business model, new challengers arise with improved products or services that will inevitably overturn the status quo. Nowhere is this more evident than in the technology industry. Today's cutting edge cool

is tomorrow's obsolete junk, making it difficult to sustain a competitive advantage.

When pitted against the certainty of creative destruction, how can companies build consistently profitable businesses? Some companies develop products that are so difficult to imitate or replace that they can influence or even determine the evolution of technology. Others embrace creative destruction and turn it to their advantage, by relentlessly innovating, and continuously improving and replacing their existing products. This article discusses two of the companies that we follow and admire, because of their successes and solid prospects in the world of technology, particularly in the growing areas of broadband and wireless.

Texas Instruments

"Don't they make calculators?" That may be the first thought that comes to mind when discussing Texas Instruments. And yes, they still do make calculators. But in the mid-90s, Texas Instruments made a huge

investment in the technology of digital signal processing (DSP). In general terms, DSP chips are used to convert analog data, such as voice, to digital data, which can then be transmitted or stored via computer. The company developed the expertise and production capacity to supply the cellular phone makers with DSPs for their cell phones, as cell networks transitioned from analog to digital.

Today, Texas Instruments dominates this area, holding almost 50% of the market, which is expected to grow 23% per year through 2007. In addition, cell phones have become far more complicated and powerful, adding contact lists, text messaging, downloadable ring-tones, and web browsers. This complexity requires more powerful chips to operate. Texas Instruments has extended their technological lead by adding more intelligence to the DSP, so that their chips provide more of the processing power of a cell phone than five years ago. As a result, it is more difficult for customers to switch to another DSP manufacturer. This also means that Texas Instruments is able to

charge more for its cell phone components, and this has led to higher profits and better operating margins at the company.

By making a huge initial investment, and continuously improving their products, Texas Instruments has kept their customers, such as Nokia, loyal and locked-in. Of course, this also means that competitors have a hard time making inroads.

Broadband installations, which provide high-speed Internet access, have been growing rapidly in the US and overseas, with installed ports expected to increase 32% each year through 2007. Texas Instruments has followed a strategy that parallels its success with DSPs. The company supplies the chips that power broadband connections, including DSL and cable modems, gateways and routers. As with the DSP, Texas Instruments has employed its chip-making expertise to progressively add more functionality to each chip. This allows the device manufacturers to eliminate other chips and build smaller, less expensive equipment, and also enables Texas Instruments to charge more for the newer, more powerful chips.

Texas Instruments has also developed Digital Light Projection (DLP), a chip-based technology that is driving many new televisions and data projectors today. DLP is much cheaper for television makers to implement than competing technologies such as plasma, and doesn't suffer from screen burn-in. DLP also enables longer-lasting, easier to maintain equipment, because there is no expensive picture tube to replace. The bulbs that power

the television or data projector can be removed and replaced for much less than the cost of a new set.

Texas Instruments estimates that they supply 45% of all data projectors with their DLP chips, and adoption by television makers has been rapid. The results can be breath-taking. A visit in January to the annual Consumer Electronics Showcase in Las Vegas offered the opportunity to review the competitive landscape in the technology segment. Although many beautiful televisions were on display, the most impressive picture was on a screen illuminated by an Epson data projector, powered by DLP. This technology is making huge screens available to businesses and consumers; you may know someone who has built a home theatre, using a data projector rather than a television.

DLP and DSP illustrate important characteristics of products that can persist in the technology segment. Both are built on proprietary technology that is difficult to copy, and both are sold to a large number of customers. Thus, Texas Instruments profits no matter who makes the coolest cell phone or television. The company has built the foundation for persistent success, in the rapidly changing technology equipment segment.

Motorola

Motorola once dominated the pager business, and looked at one time like it might also capture the cell phone market as well. But Motorola stumbled, largely by losing focus on the needs of their customers. For much of the Nineties, Motorola lost share to rivals like Nokia and

Samsung. In 2003, we perceived that a shift was underway at Motorola. The company appeared ready to charge forward with a new focus on innovation, while at the same time paying closer attention to costs and profitability.

In the last year, Motorola has stemmed its cell phone market share losses by providing attractive designs at reasonable prices. With recent introductions such as the RAZR, Motorola is demonstrating the leadership and creativity necessary to win consistently in the consumer electronics space. This was also apparent at the Consumer Electronics Showcase, where Motorola products dazzled. One exciting offering, the Ojo, provides personal video communications over the Internet. The Ojo avoids the common problem of delays during video conferencing through advanced compression techniques. With products like these, Motorola has demonstrated its renewed prowess in the consumer electronics space.

The Ojo and other similar products extend Motorola's product offerings in the area of broadband. Motorola is the nation's leading cable set-top box manufacturer, and is one of the leaders in cable modems. As rapid global broadband adoption continues, Motorola can leverage its existing products and relationships with service providers to bring out new products that allow end-users to take advantage of faster Internet access. Because of their expertise, Motorola was recently selected by Verizon to provide set-top boxes for their new IP-TV service, which will bring television over the Internet via broadband connections.

At the same time, Motorola is one of the world's leading suppliers of wireless infrastructure. In the US, its customers include Nextel, Cingular and T-Mobile. Again, the company has positioned itself as a leader in a faster growing area of technology, with operating scale and proprietary technology that cannot be easily duplicated by competitors. Wireless service providers around the world are migrating to 3-G, the next generation of wireless voice and data communication, and Motorola is there to build out networks and offer on-going service and maintenance.

Motorola also benefits from the trends in the automotive industry to include more electronics in each vehicle. As more of each car's cost and value is made up of communications and information devices, auto manufacturers purchase more chips and integrated solutions from Motorola. These solutions include navigation, engine and body control modules, Global Positioning Systems, and Bluetooth wireless integration.

Motorola is promoting its vision for seamless mobility – computing everywhere the user needs it. This means integrated applications from the home to the car to the office, and

everywhere in between. Because Motorola develops products for the car, home and mobile computing, the company can provide an integrated architecture and suite of products for consumers and manufacturers that its competitors will be hard-pressed to match.

Motorola's breadth and technical expertise make it an ideal partner to deliver popular technology on new platforms. For example, Motorola has partnered with Apple to deliver the first cell phone with an iTunes client, which will bring the industry-leading music download service to a Motorola phone later this year. We look for other collaborations in the future that will leverage Motorola's broad product offerings, business scale, and technical expertise, while advancing the vision of seamless mobility.

As an investment, it is Motorola's multiple businesses that allow it to withstand or even thrive under the forces of creative destruction. Motorola has shown a willingness to shed slower growing businesses, like the recently spun-off chip division, which will ultimately lead to a stronger company and greater shareholder value. Motorola's diversified businesses give the company the strength and flexibility

to withstand temporary weakness in one segment, while still delivering solid results. We look forward to more innovative products from Motorola, as well as continuing operating improvements.

Conclusion

At Sigma, we are concerned about chasing hot trends, and reluctant to invest in companies that are built on a single product. While some do well in the short-term, most eventually fall hard as their products are copied or supplanted by the next generation of technology.

In contrast, Texas Instruments and Motorola have the financial strength, talent and breadth of businesses to thrive over the long-term in the tumultuous, constantly changing technology industry. Both companies have positioned themselves in the fastest growing areas of technology, including broadband and wireless, to drive top-line growth and profitability. These companies continue to develop products that excite, and demonstrate a focus on operating results that we anticipate will result in long-run shareholder value.

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