

Sgi versus dell: competition in server and cloud computing essay sample

[Business](#), [Marketing](#)



I. The History, Development, and Growth

Rackable Systems was founded in 1999 by Mark Barrenechea in Milpitas Silicon Valley, California, as a specialist server company. Rackable had achieved much success until late 2006 when much larger companies, such as IBM, HP and Dell, began a price competition, driving down cost and Rackable Systems profit margins as well. During the 2000's Rackable changed business strategies several times and acquired acquisitions in an attempt to gain a competitive advantage and compete in the server market. However, during this turbulent time Rackable Systems managed to stay profitable. In 2009, Mark Barrenechea sought fit to purchase Silicon Graphics, Inc., which was in bankruptcy, for a total of \$45 million (Hill, C., & Jones, G.).

Silicon Graphics, Inc. was formed in 1982 by Jim Clark. Within the first two years of forming SGI, Clark's team developed a powerful semiconductor chip that would allow small computers to produce sophisticated three-dimensional graphics simulations, which at the time required large mainframes. Silicon Graphics gained their competitive advantage through pioneering technology in 3-D computer graphics to create products used in film production, engineering, and chemistry. Within the first decade of creating SGI they experienced explosive growth and was deemed a Fortune 500 company (SGI History). Although SGI was known as an early graphics innovator, SGI began to lose their competitive edge and profits suffered. SGI's major competitors at the time were ATI and NVidia. These companies were able to put capabilities on chips at much lower cost than SGI and offered a far more superior product.

As a result, in 2009 the company was forced to file chapter 11 bankruptcy (SGI Company Overview). In 2009 Rackable purchased Silicon Graphics, Inc., by then a maker of supercomputers, out of bankruptcy and adopted Silicon Graphics International as its name. By the end of the 2011 fiscal year SGI increased its revenues by 55% over 2010 revenues to \$630 million. For the fiscal year 2013, total revenue was \$767 million, an increase of 2% from \$753 million in fiscal year 2012. For the fiscal year 2014, total revenue's were \$530 million, down from \$767 million in the fiscal year 2013, primarily as a result of the company's strategic exit from legacy cloud infrastructure accounts and a decline in its Federal business (SGI Company Overview). While good things have happened since the Rackable-SGI merger, the overall picture of the company is that it is unable to operate as a consistently profitable company. II. Internal Environment

SGI has numerous internal strengths within their organization. One of which is a strong market presence across all lines of their production. This has allowed SGI to enhance their brand image within the market as well as increase their bargaining power. Distribution networks in foreign markets are also a key strength of SGI. Currently, SGI is distributing their products to 45 countries throughout the world. Headquartered in Milpitas, California, some of the biggest countries distributed to are Canada, Germany, Japan, and the United Kingdom. Over the past few years SGI has shown flashes of strong growth. In the 2011 fiscal year SGI managed to increase its revenues by 55% over a dismal 2010 fiscal year. In 2013 SGI increased total revenue to \$767 million, which was an increase of 2% over the 2012 fiscal year report (SGI

Investor Relations). So we see that SGI has the ability to be profitable. Lastly, SGI is dedicated to their research and development. SGI makes an effort to develop new innovative products and processes to gain a competitive advantage over the competition. SGI's biggest weakness is their inability to be an industry leader.

SGI has made numerous products that differentiated from the competition only to lose out in the end to larger companies like Dell. In some instances, it seems as Dell is mimicking products that SGI creates but makes them more efficient. SGI seems vulnerable to attack from the big companies. Another weakness is SGI's cost of production. Too often it seems that they leave themselves open for price wars. On multiple occasions large companies have been able to drive down SGI's profit margins. I believe that the constant shift in business strategies can be a weakness as well. SGI has many business strategies over the years, and while some were successful, it seems that more have led to failure. This also raises concerns with the effectiveness of SGI's leadership and their ability to make smart business decisions that keep the company stable and competitive over time. III. External Environment

Silicon Graphics biggest opportunity is the entry into new markets. SGI is well known and respected company. They continually develop new innovative technology which makes them a threat to smaller companies and even larger companies. SGI has the ability to set entry to barriers high which will allow them to remain profitable and competitive in the market. SGI also has the opportunity to overcome barriers to entry into new markets with better quality products or through acquisitions. SGI has the opportunity to

expand into more new developing international markets. They have already shown that they are capable of competing and being profitable on a global scale. There are many threats that SGI faces. The high performance server and storage markets are a very competitive market.

Technology is rapidly changing and constantly improving in price and performance. These advances and pricing pressures result in frequent product introductions and short product life cycles. Larger competitors, such as Dell, Hewlett-Packard, and IBM have considerably greater financial, technical, development, sales and marketing resources, broader name recognition and larger customer bases than SGI in both server and storage markets. In addition, particularly in the storage market, there are many new companies introducing new products and technology that directly compete with SGI.

Since these large competitors have greater financial strength than SGI does they have the ability to severely undercut the pricing of their products or provide additional products or servicing at little or no cost, which can make them less competitive or force SGI to reduce their selling prices, negatively impacting their profit margins. Lastly, these competitors may be able to develop products that are superior to the available components that SGI incorporates into their products, or maybe able to offer products that provide significant price advantages over those SGI offers.

IV. SWOT Analysis

As we can see from this case Silicon Graphics International has a strong market presence in the server and cloud market. Although SGI may not have

the financial, technical, development, name recognition, and customer bases as larger companies, SGI has been able to establish themselves as a competitor for market share. New and innovative products and processes threaten large companies and create opportunities for SGI. Poor or delayed business decisions can have dire consequences in this high performance industry. With the constant changing of technology and prices, leadership within SGI must be effective and efficient. This is especially true for a company that often times utilizes a differentiation strategy or a focus strategy on a particular niche or segment of an industry. SGI has shown that they can be vulnerable to large company competition and that they have the ability to drive down cost that effect their profit margins. To counter this weakness SGI has the ability to enter new markets either by acquisition or with a better quality product.

Despite the ups and downs that SGI has faced in the past they have managed to find ways to stay profitable and competitive in their markets. With continued growth in foreign markets SGI has the opportunity to compete with Dell and HP on a worldwide economic scale. Entering new markets will maximize market share, brand recognition and profitability. SGI must continue to expand and market their products if they expect to compete with these large conglomerates. Currently SGI has an unsustainable competitive position within their markets. They are often attacked by large corporations as well as small corporations. Entry into new markets and products is the driving force behind SGI.

V. Corporate Level Strategy

Mark Barrenechea commented on SGI saying, “ Innovation, expertise, and service are at the core of SGI. We built our company by listening to our customers, providing unique solutions for the toughest and most demanding technology and business problems, offering mass customization, and being first to market with new component technology in order for our customers to maintain their competitive advantage. This tradition will continue (Hill, C., & Jones, G.).” In 2009 Rackable sought out horizontal Integration when they acquired SGI. Through this acquisition SGI was able to combine the two main product lines from both companies, which are servers and storage products from the Rackable Systems lineup, and storage, visualization, and professional services acquired from Silicon Graphics, including its expertise in super computing. This allowed the new SGI to cut cost and bundle their products together for their customers.

Next, combining their skills allowed SGI to make superior cluster computing systems and would be able to solve large-scale data problems through a combination of hardware, storage, and software solutions. Lastly, the acquisition leveraged SGI’s new global competence allowing their products to reach foreign consumers (Hill, C., & Jones, G.). The decision for this horizontal integration was absolutely vital for both SGI and Rackable.

Because of the large amount of competition in this high performance market it is necessary to build a distinctive competency to increase their competitive advantage. Expanding their market reach will allow SGI to have instant market share and allow them to instantly compete in the server and cloud industry.

In 2013, SGI acquired certain assets of FileTek, Inc., a global provider of high performance data analytics storage virtualization, large-scale data management, and active archive solutions. The total purchase price was \$9.2 million in cash. This acquisition expanded the Company's storage solutions by enabling customers to manage data assets efficiently and lower the cost and administration of high-volume storage. Under the terms of the agreement, SGI acquired FileTek's StorHouse and Trusted Edge software, worldwide customers, engineering team, and services and support resources (CITE). SGI continues to use acquisitions to gain market share while reducing industry rivalries (SGI Investor Relations). VI. Business-Level Strategy

With a company such as Silicon Graphics International we can see their business-level strategy is focused on creating the best technical solutions for their customers and SGI utilizes product differentiation to achieve a competitive advantage over industry rivals. SGI uses a focused differentiation strategy by offering unique and distinctive products to their customers. SGI has been able to stay a competitive industry leader through their unique distinctive competencies. SGI has established superior computing density allowing them to develop more chips that are smaller and faster than the competition. SGI is a leader in reliability and serviceability. Components for their products are simple, easy to find and repair. Thermo efficiency has huge competitive advantage for SGI. Their thermo efficiency technology is an industry leader in lower temperatures resulting in lower energy costs for their customers. SGI is a flexible company that creates custom built products the meet the needs of their customers.

Time and time again SGI has shown their dedication to superior products that meet the demands of their customers. In 2008, SGI released the ICE Cube. This server was the most energy efficient product in the market. Its innovative design was the only purely air cooled system available. SGI was able to replace old rack servers with new blade servers through an agreement with IBM (SGI Products). This system offered customers a broader set of solutions for their business needs. In addition, the ICE Cube offered a more secure and reliable computing solution for business owners. In 2009, both Dell and IBM entered into the market for customized servers (Hill, C., & Jones, G.). Once again SGI took a loss as the large conglomerates drove down prices and SGI profit margins into bankruptcy. According to Yahoo! Finance's annual income statement for Silicon Graphics International in 2012 the company generated \$753 million in total revenues of which \$62 million was spent on research development and a \$150. 5 million spent sales expenses.

However, in 2014 total revenues declined to \$530 million with \$63. 5 million invested in research development and \$128. 5 million spent on sales expenses (SGI Income Statement). By comparison, Dell's 2012 total revenues were \$62 billion with \$856 million invested in research development and \$8. 5 billion in sales expenses (Dell Inc.). It is evident that large companies, such as Dell, have considerably greater financial, technical, development and sales and marketing resources, broader name recognition and larger customer bases than SGI in both server and storage markets. It is important that SGI continue to develop new and innovative technology, as

well as, build on customer relations. It is absolutely vital to SGI's survival in this high performance industry. VII. Structure and Controls

Silicon Graphics International has implemented a strategic structure that will drive changes in three major areas. First, SGI expect market growth in their core markets of high performance computing, storage and Big Data.

Management is focused on winning large supercomputer contracts in both the public and private sectors (SGI Investor Relations). SGI has continued to invest towards key vertical markets and horizontal solutions where they can provide the highest value to their customers, while differentiating their products to gain both market share and profitable margins. Second, SGI has a strong product line and continues to introduce new products and configurations that are superior to those of larger companies.

Third, management continues to focus on opportunities to enhance operational efficiency and costs. Investing towards key vertical markets and horizontal solutions are a very important to the product structure of SGI. Their use of this product structure reduces the problems of control and coordination. This pushes aside barriers among functions because the custom product line becomes the focus of production. VIII. Recommendations

Silicon Graphics international has shown that they can be a product leader and price setter within the server and cloud industry. SGI has continued to grow in international markets, and as a result have been able to compete with larger companies such as Dell and IBM. It is my recommendation that SGI will continue to expand either through innovative new products or

processes, or through acquisitions of companies that align with SGI's business model. Technology is rapidly changing and constantly improving in price and performance. These advances and pricing pressures result in frequent product introductions and short product life cycles. It is important that SGI continues to fund research development for new and innovative products that lead the market in order to obtain and maintain a competitive advantage against industry rivals. In the past, SGI has shown that they can be pushed around by larger companies.

It is highly recommended that SGI focuses their attention on keeping production cost low to avoid potential future price wars. Large companies, like Dell and IBM, have the ability and resources to drive down profit margins and bankrupt companies, as Silicon Graphics Inc. has experienced in 2009. Despite the turmoil that Silicon Graphics International has experienced over the past decade they have still managed to be a threat to large companies such as Dell. SGI has also set industry standards for server and cloud products. SGI's biggest shortfall is their inability to reach the large customer base of that of their industry rivals. Dell and IBM on many occasions have taken an SGI design and produced it at a lower cost and superior quality. One thing we can say about SGI is that they are innovative and trusted leaders in high performance computing.

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