

This paper is an example of a *good* MBA8555 case study write-up to help guide you.

It represents a good trade-off between depth and breadth of details and offers careful insight and analysis. The paper is well balanced between the THEN and NOW situations, identifies key problem statement(s) and does the analytic work BEFORE making recommendations.

The biggest flaws are 1) there is no “NOW” problem statement, and 2) the references are incomplete because, at the very least, the Annual Reports are not cited. –Dr. Sloane



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## **INTRODUCTION TO CISCO**

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Cisco System is the worldwide leader in networking for the Internet. Since the company's inception, they have been pioneers in developing the IP (Internet Protocol) computer language that is used to communicate over the Internet and in corporate networks. Their Vision Statement states: "The Internet will transform the way people work, live, play & learn." Cisco has built their innovative reputation around this vision, becoming the fastest growing company in the history of the computer industry (Nolan, 1). Their philosophy to build leading Internet capabilities & communication equipment resonates in their Mission Statement as well: "Shape the future of the Internet by creating unprecedented value & opportunity for our customers, employees, investors and ecosystem partners."

## **BACKGROUND**

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Cisco Systems was founded in 1984 by a group of computer scientists from Stanford University and went public in 1990. Its primary products of routers & switches are the devices that carry data, voice & video from one computer or network to another via internet technology. Since 1984, Cisco's engineers have advanced the development of IP as well as focused its energies on advancing technologies, recently including network security, wireless LAN, voice over & video over IP and optical networking. Furthermore, Cisco compliments its extensive product line with a wide variety of services including consulting & technical support.

Under the leadership of John Chambers, President and CEO, Cisco prides itself on its tradition of product innovation as well as corporate innovation. In 2000, Chambers implemented a company-wide goal to have leading Internet capabilities in all areas of the company. Chambers believed that showcasing Cisco's own internal capabilities would serve

to cement their leadership position through proving their operational efficiency & Internet initiatives.

### **ANALYSIS OF A PROBLEM**

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Cisco quickly became a Fortune 500 company, their growth accelerating rapidly through 2000. However, in March of 2001, an economic slowdown hit the technology industry hard. Even a giant like Cisco was affected. Cisco executives approved a massive layoff of 8,500 employees, 18% of the company's payroll as the company found itself in financial disrepair. They knew that other changes must follow. How would Cisco emerge from the economic slowdown as the leader in Internet capabilities, thus fueling sales growth?

### **SWOT ANALYSIS**

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#### **STRENGTHS:**

In 2001, Cisco's greatest strength was its brand recognition. As the leader in the worldwide "internetworking" market, Cisco's brand had been built on their customer service & ability to innovate. The company's early & aggressive adoption of the Internet strengthened their leadership position since with the rise of the Internet came a greater demand for Cisco's products. Cisco's engineers were showered with a massive research & development budget with pockets much deeper than any competitor. This allowed for a product line rich with diversity & top of the line customer service. At case time, Cisco had recently established the Internet Business Solutions Group (IBSG), which dedicated itself to consulting with both business leaders and Cisco managers to transform their Internet capabilities at no charge. The IBSG believes "The Internet is a proven catalyst for saving time and money—and for creating new revenue-generating services" ([www.cisco.com](http://www.cisco.com)). In using Cisco's own best Internet practices, the group exists to help customers create new revenue sources, increase productivity and reduce costs through the use of Cisco technology.

## **WEAKNESSES:**

Analysts & competitors wondered if Cisco could continue to grow in the future as it had in the past, thus creating enormously high expectations (both internally & externally) for the company to continue its success rate, sales patterns & high levels of innovation. Another weakness was managements' inability to unify their employees into working as teams towards common goals. There was no operating discipline for a staff continuously focused on sales & stock options. With such a "seize the moment" business culture, Cisco's checkbook was open to purchasing any number of start-ups and small competitors. There was a severe lack of guidance & little executive control. Executives were primarily concerned with making purchases and focused little on internal innovation. This lack of executive control led to another Cisco weakness, which was inefficiency in the engineering department. Cisco engineers were able to invest in the advancement of thousands of unproven, questionably beneficial technologies without senior leadership or input. Cisco's engineers were spread all over the world, spending incredible amounts of money, and working on virtually any project they wished.

## **OPPORTUNITIES:**

There were numerous opportunities for Cisco to further develop their Internet capabilities. However, instead of diversifying their product line, Cisco has historically chosen to focus on & dominate a particular product group- IP technology. At case time, two clear opportunities were in the Service Provider as well as the advancing Optical Networking markets. In 2001, although the Service Provider market was not a current strength for the company, it did stand out as a major opportunity since the market was moving towards combining voice, data, & video and Cisco was capable of offering these services through more cost-effective IP-based networks. One of the only network market segments that Cisco was not a major player was the optical networking market where Nortel was the clear leader.

An obvious opportunity was for Cisco to make advancements on this and other new technologies.

### **THREATS:**

Clearly, Cisco's greatest threat is the state of the economy. We can see the result of an economic downturn through Cisco's massive layoffs in 2001. However, as the economy rebounds, will Cisco face an even bigger threat of their customers shopping around for better prices? Furthermore, the bar for Internet leadership is rising. Customers expect Cisco to innovate more rapidly than ever before. Can the company keep up while keeping costs down? These customers also want more but wish to pay less. It is possible that smaller niche competitors might slowly win market share through more personalized services and cheaper prices.

### **STRATEGIC RECOMMENDATION**

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Keeping in mind the analysis of Cisco's internal & external environments, we have come up with the following Strategic Recommendation:

***We feel Cisco needs to refocus their internal operations & build a better corporate foundation, while continuing to innovate.***

In order to maintain a long-term growth strategy and emerge from the current market transition, Cisco must contain their costs. A starting point is to temporarily close their purse to swift purchases of unproven startups and small competitors. The company needs to become a stronger innovator internally, thus less reliant on acquisitions. Next, they must carefully choose new alliances in order to transform their product mix. With a wider variety of available product, Cisco can continue to drive development of the Internet while contending with smaller, more specialized competitors.

Cisco originally had a business culture with few regulations and planning. We feel there must be a greater emphasis on teamwork, with management overseeing all legitimate project proposals. Cisco must realize the potential of bottom-up innovation & make every effort to embrace these possibilities with strong executive leadership. Perhaps a solution is to base a percentage of salaries on each teams' ability to adopt & retain their implementation of the Internet. As Chambers mentioned in the case, Cisco needs to use their period of downtime to build the systems that will allow them to execute well and deal with explosive growth when times get better (Nolan, 11).

Another suggestion is to centralize the Engineering team, as discussed earlier. In 2001, Cisco engineers were spread all over the globe, spending 14% of revenue on developing projects that were often outdated or out of scope. Through relocating their engineering team and spending even 3% less on development, Cisco could benefit significantly in terms of savings, sales, and product efficiency (Nolan, 11). To this end, management should decide which projects will truly benefit the company and require each business unit to implement these new technologies where appropriate.

Finally, we feel that through a reduction in prices, Cisco can best maintain their leadership position and grow their market share. As the economy rebounds, Cisco needs to retain their core customers and make their product easily available to new customers, including small & medium sized businesses with smaller budgets than the customers Cisco is typically devoted to.

Through efforts such as these, we believe Cisco has great potential to emerge successful out of the economic slump.

## **INVESTMENT RECOMMENDATION**

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The late 1990s for technology companies was a period of unheralded growth, where investor wealth soared along with stock prices. After this period of tremendous growth, the U.S. economy fell into recession in 2000 and the dotcom bubble burst. For Cisco Systems, this represented a shrinking market as there were fewer companies with smaller capital spending budgets for Cisco products and services, resulting in revenue forecasts that should have been flat at best. However, the company did a poor job of forecasting sales and reacting to the economic slowdown. The impact could be seen in Cisco's inventory turnover ratio, which had fallen from 7.14 to 4.6 (10Q January 2001, 20). Ultimately, the company wrote-off \$2.2 billion of obsolete inventory, which represented 20% of Cisco's retained earnings (Burrows, "Cisco's Comeback"). Additionally, the firm's operating income had fallen from 23.6% in 1999 to 14.6% for the first six months of fiscal year 2001. This decline can be attributed to higher cost of goods sold, research and development, and sales and marketing expenses. On the whole, operating expenses rose from 41.2% of sales in 1999 to 46.5% for the first half of 2001. During the same time period, Chambers saw net income fall from 16.6% to 12.6%. From a balance sheet perspective, Cisco is positioned strongly. The company has several billion in cash and investments, totaling \$16.7 billion in January 2001. Furthermore, the company carried no long term debt, preventing interest payments from deteriorating shareholder value. Unfortunately, the overall financial performance of the company is in decline and prospects for revenue growth are poor. As a result, the investment recommendation in January 2001 is to sell.

## **CISCO TODAY**

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Cisco today is considered the worldwide leader in networking for the internet. Its market share of the total \$92 billion communications-equipment business has jumped from

10% to 16%. (Burrows, “Cisco’s Comeback”) The mindset of growth at any cost and the chaos that it created was replaced with a six-point plan that emphasized careful planning and teamwork (Burrows, “Cisco’s Comeback”). Executives who were once encouraged to compete with each other found that teamwork would count for as much as 30% of their annual bonuses. Cisco has also been on a cost cutting frenzy. In an attempt to cut more costs they have squeezed out more than 3,000 resellers and 800 suppliers. They have also begun to outsource their production. Currently 90% of production is outsourced compared to 45% just three years ago (Burrows, “Cisco’s Comeback”). Also, millions were spent to shift production work from nine contract manufacturers to just four. Investors have so far looked favorably on Cisco. After reaching a low of around \$8 per share in October of 2002, Cisco stock has surged to approximately \$23 today.

## **WHERE IS THE “NOW” PROBLEM STATEMENT?**

### **SWOT ANALYSIS**

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#### **STRENGTHS:**

Today, we would consider some of Cisco’s strengths to include brand name recognition and a broad product line. In a recent survey published in networking magazine, Cisco emerged the winner, with nearly 70% of respondents citing the vendor as the most recognizable of the 30 networking equipment vendors listed. Respondents also regarded Cisco as “innovative” while its competitors were seen more as selling less expensive, “commodity-oriented” products. (www.cisco.com “Growing with Technology Awards”) The brand recognition of Cisco Systems gives it an advantage in its positioning of its network equipment against other service providers. Longevity of the network design and protection for equipment investments are critical factors in the selection of Cisco engineered solutions. Cisco always has an ongoing development path for its products so their customers will never be at a dead end. Cisco also has the ability to adapt to new technology. One

customer of Cisco has been quoted as saying that in terms of product development, “Cisco serves its customers needs before they even recognize them”. Another strength of Cisco is their large R&D budget. Last year Cisco spent \$3.3 billion on R&D which accounted for 17.5 percent of revenues. Which was proportionately far greater than its next major competitor. (NASDAQ Online, “Cisco route...”) Another strength for Cisco is their strong balance sheet. With no debt and cash and investments of \$21.9 billion, Cisco has the necessary capital available to allocate toward R&D in order to remain at the leading edge of innovation (La Monica, “Cisco warns...”). This also gives them the flexibility to incur debt if necessary.

#### **WEAKNESSES:**

Some weaknesses that we see for Cisco include the large number of bugs in their products. Recently, a midsize Memphis, Tennessee bank installed a large amount of voice over IP phones but then quickly switched to a new provider. The reason cited was that Cisco just simply couldn't work out the bugs. (Voip-news.com article) This is something that Cisco needs to pay particular attention too, since now corporate phone customers have more choice than ever when choosing among vendors. Cisco, which all but created the fast growing voice over IP market single-handedly, will begin to feel some heat from some unhappy customers unless they can control the issues and improve reliability. Another weakness we see with Cisco is their geographic diversity. With their main office located in San Jose, a research park located in North Carolina as well as other offices located throughout New England, not to mention their international locations, it would seem that managers would spend more of their time in cars or on planes than they do actually solving the problems that crop up at other sites. It is important that a company like Cisco, which emphasizes such a core corporate ideology, be able to communicate that to all of their locations effectively.

## **OPPORTUNITIES:**

Opportunities for Cisco include the demand for a single vendor and end-to-end solutions for networking. Many corporations would prefer to stick with one trusted supplier for all of their needs. Cisco has the broad product line and solutions to deal with this preference and should take advantage of it. Other opportunities include increased expansion into future growth areas including Voice Over IP, Security and Firewall protection, Storage Area Networking, Wireless & Mobile as well as Optical Switches.

## **THREATS:**

Threats include increased industry rivalry from traditional rivals such as IBM and Nortel Networks but also from companies like Dell and Asian upstarts that are trying to compete with Cisco on price. Also the constantly changing customer needs and desires are threats. It not enough for Cisco to satisfy a customer's current need, they also need to anticipate future needs as well. With the market becoming highly competitive, a new comer could easily force its way onto Cisco turf by simply outmaneuvering them to the next big thing. The economy is also a threat to Cisco. Cisco's growth is very dependent on a strong economy. When the economy is doing well and corporations are making money then they are most likely to invest in new technologies that Cisco provides. However, in bad times, new investments are most likely the first things to be cut, thereby severely limiting Cisco growth.

## **MAJOR COMPETITORS**

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Cisco's traditional major competitors have been companies such as 3com, Lucent and Nortel Networks. However, the next generation of competition is coming from new rivals, such as Dell, Chinese Vendor Huawei Technologies as well as other Asian vendors. Huawei is a good example of a company that has used R&D and low-prices to climb up the

networking value chain (Charney, Ben. Cisco readies...”). Also, Dell is very much going after the commodity product space where competing on price is the main feature (Lawson, Stephen. “Cisco takes...”).

### **STRATEGIC RECOMMENDATION**

With costs contained and Chambers six-point plan of operational discipline in full implementation, we feel that for Cisco to fuel their growth going forward, they should concentrate their efforts within certain key areas. One area in particular that we feel Cisco should concentrate on is the continued development of their Internet capabilities, allowing Cisco to promote new uses for internet technologies and growing the market in which they compete. Internally, most of Cisco’s business processes are now web-enabled. This includes their sales functions, training, and human resources. Externally, Cisco provides customer support and information to customers both in the U.S. and internationally over the Internet. Customers have easy access to order information, product information, and customer support (Cisco.com Technology awards). Customers who take advantage of Cisco’s web site have reported a high degree of satisfaction not to mention lowered costs and delay times. (www.cisco.com )

The technology sector has short product life cycles. To be successful a company would have to budget for a large R&D expense. By outspending their rivals in strategically chosen markets, we believe that Cisco can strengthen its market position. There are five growth areas that we feel Cisco should concentrate their efforts. Those areas include IP telephony, wireless and mobile, security, storage networking and optical switches.

The Internet Protocol Telephony market also known as voice over IP is becoming a key driver in the evolution of voice communication. Cisco launched its first products in this area in 1995 and by 2006 this market is expected to be worth \$6 billion. (NASDAQ Online) This market is driven by service providers looking to add IP telephony to their networks as a way of providing customers with value-added services. Cisco already has a large share of this growing market and we believe Cisco should make the required investment to increase their market penetration.

Another market, wireless and mobile, is expected to be worth \$4 billion by 2006. (NASDAQ Online) Instead of a fixed access point on a fixed network, the new model is now of a body in motion crossing from one network to another whether it is in a plane, train or car. Cisco's challenge would be to maintain that connection. They already have a successful product in this market with the launch of their Mobile Access Router launched in October 2002. Key drivers for Cisco will include encouraging home working, fast implementation in small offices and wiring of public spaces.

For Cisco, Security is close too or at the top of the list of priorities for all of its customers. As companies try to gain competitive advantage by using their networks to build team working, security is all about protecting business applications and services. The security and Virtual Private Network market is predicted to be worth 14.6 billion by 2006. (NASDAQ Online) Major drivers include corporate fear of fraud and hack attacks, and terrorism as the move toward a network of networks approach gains more momentum.

Last August, Cisco bought Andiamo to gain entry into the high growth switching market. Since storage area networks (SAN's) are proprietary, sharing data is difficult. By

introducing IP networks into SAN's, Cisco can connect different networks, providing cost and productivity benefits. This market is expected to be worth around \$4.8 billion by 2006. (NASDAQ Online)

Cisco should also look for growth in Optical Switches for connecting storage networks over long distances. The switches are useful for backing up data to remote locations and for disaster recovery. Optical Switches are expensive and many of Cisco's competitors have actually dropped out of the business. Market demand in this area has shifted to next-generation technologies. Cisco should leverage its large R&D budget to lead innovation in this market.

### **INVESTMENT RECOMMENDATION**

At the end of fiscal year 2003, the historical sales revenue picture proves our forecast for 2001 to be correct. From 2001 to 2003, sales fell from \$22.3 billion to \$18.9 billion, as capital spending at large firms dried up. However, for the first quarter of fiscal year 2004, Cisco revenues climbed 5.3% to \$5.1 billion, which was its highest since January 2001 (Thurm). After the huge write off in 2001, inventory turnover is at a respectable 6.47. Combined with higher sales, this indicates that management is forecasting sales more accurately and the business is growing. Profitability has also recovered from a low of losing 9% in 2001 to posting a operating profit of 25.9% in 2003. Contributing to the increase in profitability is a number of cost savings. Cisco increased the amount of production outsourced to 90% and reduced the number of its suppliers from 1300 to 420 (Burrows, "Cisco's Comeback"). As a result, it saw cost of goods sold fall from 46% of sales to 24%. Other savings were found in research and development and sales and marketing. For example, the company benefited from enhanced internet capabilities, primarily voice over IP,

totaling savings of \$2.1 billion in 2002 (Burrows “How Cisco...”). The net effect of these efforts was to reduce operating expenses from 58.66% in 2001 to 44.24% in 2003. The bottom line improved as well, as Cisco rebounded from a loss of 4.6% to a profitable net income of 19.0% in 2003. In 2003, the balance sheet is still strong with \$21.9 billion in cash and investments and no long term debt. The network equipment industry, which constitutes 80% of Cisco’s current business, is expected to grow at a rate of 8% to 12% for 2004 and 2005 (Standard and Poor’s Industry Surveys, 1). Goldman Sachs analyst Brantley Thompson thinks that Cisco “can get to 10%” growth, including the 5 new businesses discussed earlier (Burrows, “Cisco’s Comeback”). Additionally, S&P has given the company a 5-STAR rating, which translates in to a buy rating (“Where It’s Good to Be Overweight”). Given analyst opinions, an improving economy, and healthy financials, we have assigned the company a buy rating in the current environment.

## **SUMMARY**

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This case study illustrates that Cisco, like most large companies, must develop an environment that is conducive to growth. First, senior management must set goals and objectives using their vision of the future. Next, they must communicate the goals and objectives clearly, so that employees can help drive the company in the desired direction. Also, a strong control environment must be established to ensure that company employees and initiatives are properly aligned with the corporate goals. Finally, and possibly most importantly, the company must continue to innovate. The innovation can be aimed at reducing expenses, improving products, or creating new product lines. Ultimately, it is innovation that will allow the company to grow profits.

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