

Strategic Management

Sun Microsystems's Brief History

Currently worth well over \$13,880 Billion, SUN Microsystems has come a long way from just starting with four young Stanford graduate students, in Palo Alto California. Scott McNealy, Bill Joy, Andy Bechtolsheim, and Vinod Khosla were graduate students at Stanford when they decided to start Stanford University Network, later known simply as SUN, in February of 1982. They quickly went to work using their degrees on releasing the very first workstation that included TCP/IP, known as internet protocol. SUN's mission is to "solve complex network computing problems for governments, enterprises and service providers."

SUN would soon get them involved in a huge enterprise that would quickly expand worldwide. After only one year of operation, SUN and Computer vision signed a \$40 million manufacturing agreement and quickly went to work internationally in Europe. With the cash flow now coming in, SUN was able to send the money necessary to establish the industry standard for network file sharing known as NFS. With the group support of the NFS system, SUN once again focused on expanding its market. This time they looked north. In 1985 SUN opened operations in Canada, and the following year looked west across the pacific to open up its operations in Asia and Australia, just after its widely successful IPO (Initial Public Offering). Now, five years after the start of four young students, and worldwide operations in over 4 major countries, SUN once again focused on innovation, with the PC-NFS. PC-NFS technology introduced network computing to PC users, which now made the personal computer market

available to them. With the PC market now being utilized by SUN, they were able to reach a goal that no computer company with a direct sales force has ever done, one billion in revenue in only six years of business.

Now growing at a record setting rate, and seeking to even further their growth, SUN allied with Oracle, Sybase, Ingres, and Informix, to set up the number one database platform available. By 1990, SUN was producing over 5 models of workstations, and held major manufacturing plants in: Scotland, France, Asia, Australia, and Europe. They created a workstation that was listed at under \$5,000, and had shipped more than half a million systems, but this was just the smoldering of the fire. The fire would truly be noticed three years later when Sun sent out its one millionth units, making its first start onto the coveted Fortune 500 list, which it would never leave to this day.

SUN would soon encounter one of its major legal battles, when its programming language called Java that was developed for use with any type of computer was taken by Microsoft, and reconfigured to run better on the Windows operating system. This started a legal investigation into the true intentions of Microsoft, which through a recovered email of Microsoft's then CEO, Bill Gates that stated "Do we have a clear plan on what we want Apple to do to undermine SUN." After the successful closure of this trial, SUN's chief executive Scott McNealy came out known as a strong and powerful contender in the computing market, as well as developing many more influenced friends in the market.

SUN now holds offices in 100 countries, and is a global leader in network computing. With more than 2.5 million programmers and developers innovating the worldwide system of JAVA, it is the backbone of the majority of programs. SUN powers more than 600 computers

grids internationally, has the largest data ware house, and is constantly delivering customer ready systems with out-of-the-box solutions, for all its customers' needs. SUN has come far beyond the four young Stanford graduates, and into a corporation that what it would call "Nth Ready", which means that it is ready to go to the Nth level of innovation right now!

Sun Microsystems's Notable Products

Sun operates in three product markets: UNIX workstations, UNIX servers, and the total server market (Unix/NT/Other)

Sun Microsystems's External Environment Analyses

Introduction

There is no organization that can exist lonely; each business is established in a particular country or region which cannot escape from it. Within these regions or countries, there are some rules and regulations that will influence the company' operation in the matter of what they produce and how they produce it.

External Environment is an important factor that influences the performance of the company either positively or negatively from outside the organizational boundaries. Sun Microsystems also, is attempting to analyze its external environment and prepare itself to take an on time action or reaction to these external effective factors. In external environment there are effective six aspects that make external environmental effects and must be analyzed. Political/Legal, Socio-Cultural, Technological, Demographical, Economic and Global factors. In the following we will provide some explanations for the above mentioned key dimensions of external environment.

Political/Legal Environment

The political and legal environment in a country provides some rules and regulations for each organization that operates within those environments. Some of the countries provide more restriction and limitation for the organizations. Though, there are some other countries that their rules and regulations are not so restricted and the companies within these countries or regions are not restricted much in the way of their operation. It is compulsory for all companies to understand the political and legal environment in order to determine if their organizational changes can take place or not. These rules and regulations may be have shaped by a unique combination of some forces such as governmental, nongovernmental and international policies. Moreover, legislative and regulatory and legal frameworks are also the forces that may shape the rules and restrictions for the organizations and companies within any country or region. These laws may favor the organizations and support it or it may inhibit the organization development and restrict it.

As for the sun Microsystems we have determined some of the aspects of political and legal issues that have affected and are yet affecting the sun Microsystems business. The followings are the determined factors for sun Microsystems:

- Boycotting the US Products by Other Countries because of the US relationship with Israel

There are some countries in the world that boycotted the US products because of its relationship with Israel. These countries are having some political problems with Israel and they don't accept Israel as a country. Since United State is having a good relationship with Israel, countries like Syria and Libya have boycotted the US products and they are not dealing with US

companies. This issue has influenced the sun Microsystems business since it cannot spread its business into these countries and it will lose the potential markets which are available for sun Microsystems product.

➤ Ant boycott Law by the Export Administration Regulations

Moreover, in reaction to the above mentioned boycott from some of the mentioned countries, the export administration regulation of United State settled new rules which call them ant boycott law. Referring to these law American companies is not permitted to deal with the countries that have boycotted US products. In failure to do so, the export validate license of the guilty company will be revoked and they won't be able to continue their business any more even within the America. This issue has more restricted the business of companies like sun in these countries.

➤ US Embargoes or Trade Sanctions

Another political factor that is influencing the sun Microsystems business and trade in different countries and regions is the United States sanctions against some of the countries in the world. Countries like Cuba, Iran, Myanmar, Sudan, Syria and North Korea are sanctioned by United States. The sanction is implemented for some countries which United State doesn't want to have any trading connection with them. Also, if these countries are interested to buy the American products cannot make any trading since the sanction is prohibited all the American companies to sell their products to these countries. All these sanctions are happening due to some political conflicts that exist among United State and sanctioned countries. Of course, sun Microsystems is not an exception and cannot sell its product to the sanctioned countries. We have to keep in mind that since the black market exist, the American products are able to get into

the sanctioned countries but the problem is that this process is happening illegally and the producer or manufacture American company is not enjoying its real profit it can earn directly by dealing with these countries.

Socio-Cultural Environment

Social and cultural forces affecting the firms and organizations in different levels such as local, national and regional. These forces' effect is on the way the organizations conduct their work environment and on the value which will be created within the organization. As for the social and cultural issues that influence the sun Microsystems performance, the following are determined:

- Changes in Customers' Preferences about Product or Services

One of the main forces in the society that may affect any company in the market is the changes of customers' preferences about the product or service. Customers in the market may change their preferences according to the new innovations by other companies in the market or due to functionality of the new products from different available producers in the market. Sometimes even the style may change their preferences. For sure the companies who are the producer or manufacturer of a product may have this fear of losing their customers because they cannot fulfill their customers' preference or need.

- Customer Loyalty Fluctuation

Another Important factor is the customer loyalty. There are many customers in the market whom some of them are considered as loyal customers to a product or service. However, this is

not confirmed to be stable. In these days intensive competitive environment, all companies are trying to capture and attract their competitors' customers. The organizations have to implement such a strategy that with all the forces from their competitors, their customers remain loyal to their organizations and don't switch from their products to their competitors product. They have to look for some methods and strategies to maintain their customer loyalty in order to avoid customer loyalty fluctuation for their organization's product or service.

➤ Incremental Importance of Education

With the advent of technology in this century, the education has become one of the important issues in everyone's life. Technology and the computers have made it easier for mankind to communicate, learn, teach trade and become more creative. This issue has a good influence in a business of companies like sun Microsystems. Since sun Microsystems is providing workstations, servers, software and many other computer related products, and by considering that the education importance has increased; the number of the computer users will increase noticeably which will have a good influence on sun Microsystems sale and profit.

Technological Environment

Technological factor is another external force that influences the performance of the companies and organizations. Technology is something that has involved everyone these days. There is no single day without technological new innovations and improvements. People cannot live without technology any more. All their part of lives are somehow connected to the technology. The mobile phones, computers, games and many other technological tools that are involved in all people's daily life. A technology change not only affects individuals also it affects

the organizations and companies. As for the sun Microsystems we have determined the following technological factors that affect its business:

➤ Growth of Technology in Server Market

As we have mentioned the technology is growing day by day. Server market also is not an exception. The growth in server market has a good influence on sun Microsystems and its competitors since they will have more customers to feed and earn more profit. However, they have to keep in mind that by applying the correct strategy they should increase their market share compare to their competitors.

➤ Merge of New/Existing Technologies

Another technological factor is merging the new and existing technologies. Some of the competitors in the market may take advantage of merging their existing technology with the new available technology and make a competitive advantage for themselves in the competitive market. So companies like sun Microsystems should be aware of all these issues and react properly to such issues.

➤ Growth in Information Technology Industry

Growth in Information technology also is having a direct effect on the businesses like sun Microsystems. Since sun Microsystems products are technological related, the growth of information technology industry will affect its business. Not only sun Microsystems, also all other its competitors and other companies that their products are technological based products.

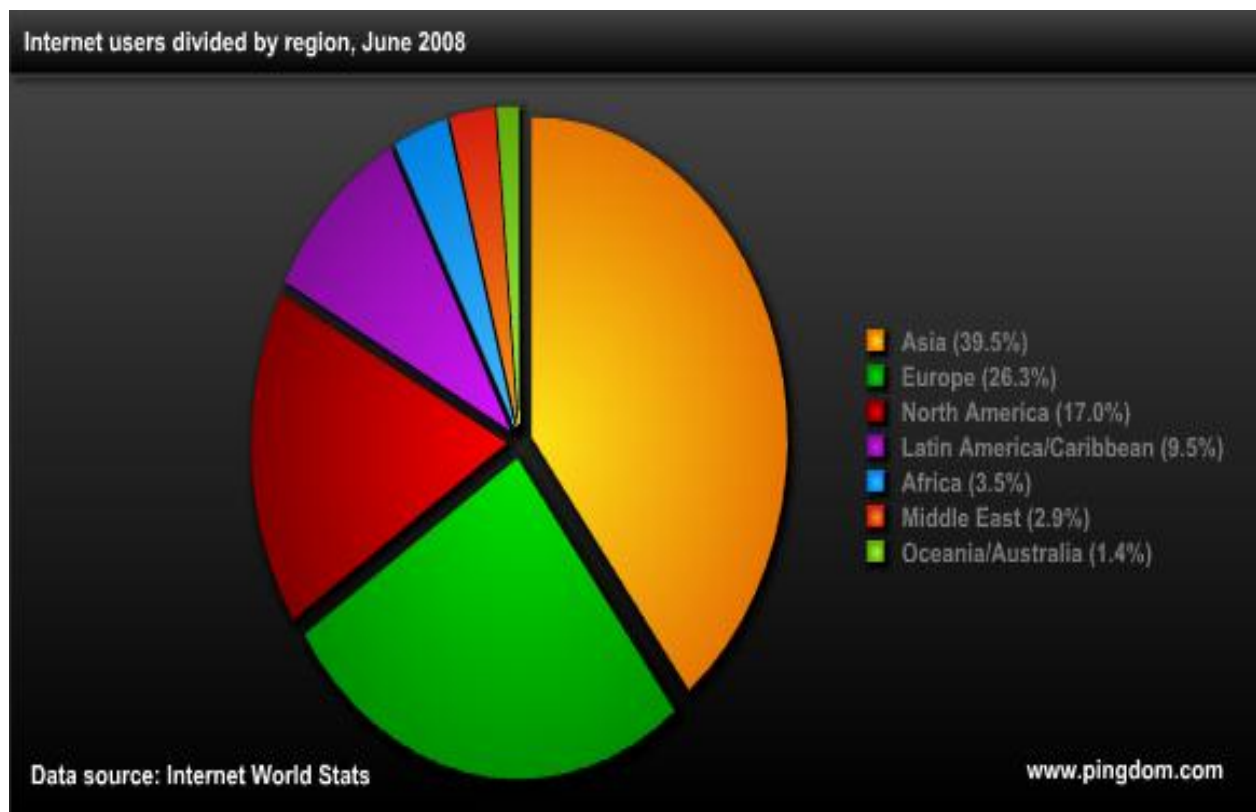
➤ Innovations

Innovations also influence the businesses of companies in all industries. Innovation in any field can affect the performance of the existing companies performance since it will keep them a step behind in the market. In our case, if any innovation happen in the server market or other markets that sun Microsystems works, it will affect sun's performance since it has to adapt itself to that new innovation or innovate something much better.

Demographical Environment

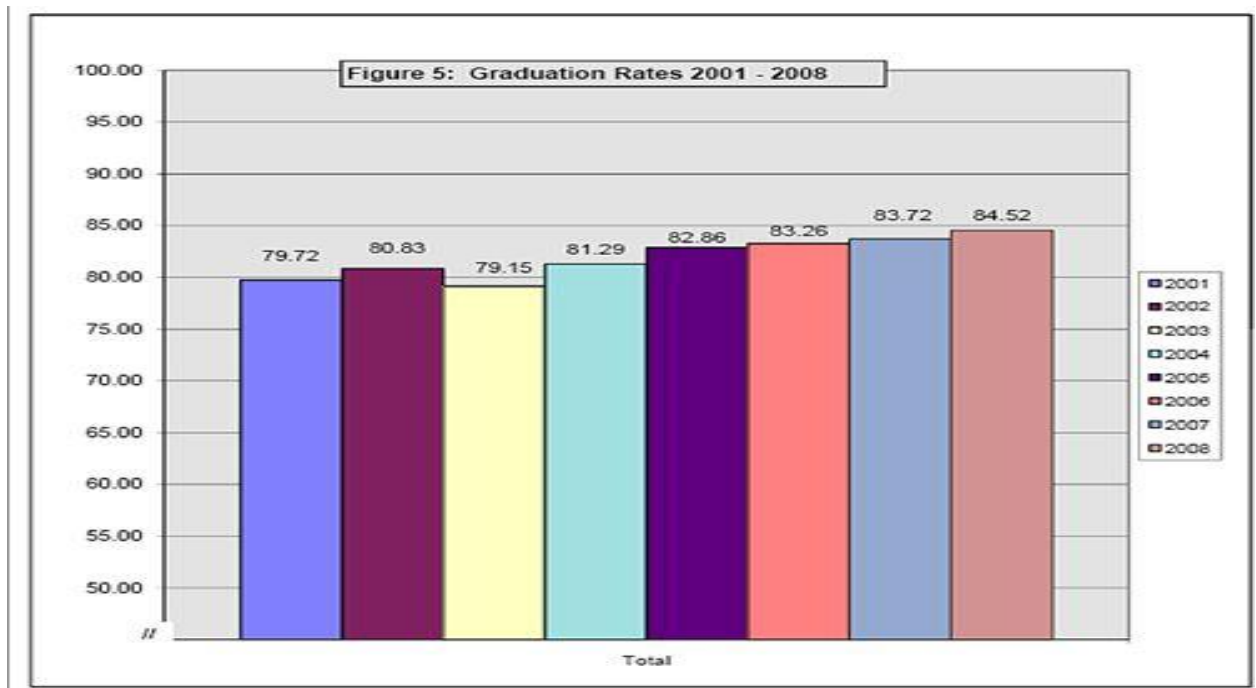
The followings are the important demographical factors which influence the sun Microsystems's business and its market.

- Geographical distribution of Internet Usage among countries



According to the above chart, we have determined that Internet users hold a huge market in Asia, Europe and North America. Companies like sun Microsystems can expand their business into these countries in order to enjoy more sell and more profit. The more market share for each company the more sales they will have and then it will result in more profit.

➤ Literacy Rate



The above chart illustrates the increase in the literacy rate in the whole world from 2001 to 2008. As you see the up sloping chart proves the increase in the literacy rate. So the more literacy rate , the more users of internet and the more users of sun Microsystems products. This is another important factor which has effect on sun Microsystems business and market.

➤ Sun Microsystems presence in different parts of the world

The other important demographical factor is the sun Microsystems presence in different parts of the world. In the below chart you can realize that sun Microsystems has a potential market in

the middle east which it has not used yet. And still sun Microsystems has a lot of work to do in order to increase its presence in the Asia pacific, Europe and America. As for a company like sun Microsystems, there are a huge available markets yet and they have to find a way to enter in such fresh markets before its competitors move in.

Economical Environment

In the economic environment, the organizational analysis should concentrate on those aspects of the economic system that directly impact the organizations. The economical factors that can affect the companies like sun Microsystems are as following:

➤ World Recession

Recession is always a key factor that affects the companies' performance all over the world. When recession happens, the buying power of the people decreases so they may not afford to buy the available products in the market like before. This means that the demand will decrease so the companies who are selling their products in the market may face a decline in their demand so this is just happening because of the recession and sun Microsystems product won't be exception.

➤ Currency Fluctuation and Devaluation

For those companies which sell their products abroad, the currency fluctuation is another important factor that affects their business and their revenue. Currency fluctuation may increase the buying power of the customers or decrease it so in both cases the companies face fluctuation in their revenue.

➤ Fluctuation in the cost of the raw materials, components and human resources.

Other important issue is the fluctuation in the cost of raw materials, components and human resources. The fluctuation in this segment will have a direct effect on the financial status of the company, its buying power, selling price and the employees satisfaction.

Global Environment

Global factor is the last external environmental force that we are discussing in this case. Just like other mentioned external factors, the global factor also affects the companies and organizations' performance. The followings are the global issues that influencing the companies operation:

➤ Joint Ventures and Alliances

In the competition market, anything is possible. One day we may be informed that our two biggest competitors have started to cooperate with each other. They may start their cooperation via joint venturing or becoming alliance. In the vice versa, we may become an alliance with one of our competitor in favor of our business to increase our market share. Both ways these will influence the business operations in the same industry.

➤ Global Competition

Nowadays, the globalization is diminishing the boundaries between the countries. In the other word, the businesses and industries are becoming "Glocal" which is a means being local in the global market. So the competition is getting more intensive and for sure in such intensive competition all businesses will be affected.

➤ Unsaturated Lucrative Markets

Unsaturated markets are the best potentials for companies to expand their business and sale. Companies should look carefully and find the fresh markets before their competitors step. This issue will give them a competitive advantage to be the first mover into these markets and enjoy the most profit out of this market.

Sun Microsystems's Industry Analyses

Other than external environmental factors that we have discussed earlier, Porter has identified five forces that enable everyone to analyze the industrial effects on the individual organizations. The followings are the Porters' five forces explanation for the sun Microsystems industry.

1. Threat of New Entrants /BARRIERS TO ENTRY

The first component of Porters Five Force is threat of new entrants that is Low for Sun Microsystems industry sectors.

Conglomerate operation industry in today's business environment is very tough industry for new entrants. As well as nature of conglomerate industries, many new entrants and players banned following barrier:

- High investment
- Expected retaliation
 - Human resource
 - Physical assets
- Strong R&D

- Economy scale

2. Bargaining Power of suppliers

The second component of Porters Five Force is power of suppliers that is high for the Sun Microsystems industry sectors.

- Few suppliers
- Threat forward integration
- Large number of material s customer

Few Suppliers can effect extremely and also control the firm by delay on raw materials and submit the low quality material, and also they can increase the price even with few suppliers as DELL Company which is the strong competitor, supplier, and even buyer of Sun firm.

Suppliers can threat and control the firm by its power; that they have in the industry even they can buy the firm by any way as finance. Today's industry, there are a large number of customers that suppliers could supply to another firm if some firm reject the materials or don't want to buy materials.

3. Bargaining Power of buyers

- Threat of backward integration
- High price sensitivity
- Several large buyers

In the threat of backward integration Buyers also can threat by buying the firm by its own power that they have in industry. And also with existing of several buyers is a big threat for firm. And price in case is high sensitivity. so bargaining power is high

4. Product substitute

➤ Close customer relationship

Strong customer relationship management helps Sun save expense and time which is one of the key functions of its dedicated service delivery manager (SDM). A full time resource available to all solution support center customers. The SDM provides personalized support management and expert advice to ensure upgrade go smoothly with deep understanding of the customers business and technical priorities. The SDM is equal part of counselor and solution provider, calling on extended team of services engineers, developers, and subject matter experts as need. Like all solution support center customers. Sun also benefits from configuration assessment. Through these assessments, Sun is able to quickly prevent future problems and improve the efficiency of its source.

➤ Exclusive products

Because today's electronic industry is going to increase and expand upward sharply so companies must use of innovation and patents strategy because customers can switch to anyway and looking for another products.

➤ Global Customer and brand loyalty

Sun global customer experiences strategy is highly focused on consistently gaining insight from the answer these questions through a strong customer loyalty research program to its credit,

sun views globalization as an enterprise- wide business practices as part of its commitment to the renew focus on the global customer experience based on increasing revenues in international market.

5. INTENSITY OF RIVALRY AMONG COMPETITORS

➤ High exit barriers

In many industries operate in, exit barrier is high. Then competitors can not exit easily and rivalry is becoming intense. Some barriers are specialized assets, fixed cost of exit, and social restriction.

➤ Price competition & several large competitors

Exist several large competitors in the electronic industry causes intensity rivalry in competition and they challenge in price of products to get the best profit.

Sun Microsystems's Summary of the Industry Analysis

According to the above mentioned analysis we have came up with the following summary for the sun Microsystems industry:

➤ The Power of New Entrants is LOW

➤ Power of suppliers is HIGH

➤ Power of buyers is HIGH

➤ Product substitutes are HIGH

➤ Intensity of rivalry is HIGH

Sun Microsystems's Competitive Environmental Analysis

Sun operates in three product markets: UNIX workstations, Unix servers, and the total server market (Unix/NT/Other). Sun is the leading firm in the traditional workstation market with 18.9% of the industry revenues in 1997(table1). Sun is also the leading firm in the Unix market for servers (from entry level to large scale) with 26% of units shipped and 24% of the revenues (table2).

Sun's 1998 revenue growth was the highest of all its competitors in all categories of Unix servers except the midrange where it came in second to HP. Finally, Sun is ranked fourth in the total server market including Unix/NT/Other servers (table2).

Its primary competitors in these markets have been IBM and HP but new competition is developing from Compaq (DEC/Tandem) and Dell in the midrange server market (table1).

Competitors like IBM, HP and NCR are reportedly leaving the Unix market and providing a temporary growth opportunity for Sun in what is considered a declining market overall.

Firm	workstation		Midrange servers 5.000S -500.000S		Large scale servers >500.000S	
	1997	1992	1997	1992	1997	1992
	19\$billion	10\$billion	39\$billion	24\$billion	16\$billion	26\$billion
SUN	18.9%	22.8%	8.5%	n.a	<1.0%	n.a
IBM	13.4	10.9	16.8	24.2	33.1	34.6
HP	16.3	12.2	12.3	8.1		
COMPAQ			15.8	n.a		

(1) Worldwide workstation and server market shares, 1992 and 1997 (percent)

Sun does very well with high tech companies and those that can employ, sophisticated and experienced technical staffs to build and maintain complex corporate and inter-corporate networks. Its major customers tend to be large manufacturing, finance, government, education and telecommunications (telephone, cable, ISPs) enterprises.

Firm	Total <u>unix</u> servers		Total servers Unix/NT/others		Entry servers <100.000\$			Midrange servers 100.000\$-1million\$			Large scale servers >1 million\$		
	Units	Rev.	Rev.share	Rev.Gr	Units	Rev.	Rev.Gr.	Units	Rev.	Rev.Gr.	Units	Rev.	Rev.Gr.
SUN	26	24	10	29	25	27	14	28	19	22	42	32	51
HP	16	22	13	15	14	14	-39	32	30	31	26	12	5
IBM	19	15	25	1	16	23	-5	10	16	-2	8	23	10
Compaq	4	15	13	-1	16	9	3	7	5	15	<u>n.a</u>	<u>n.a</u>	<u>n.a</u>

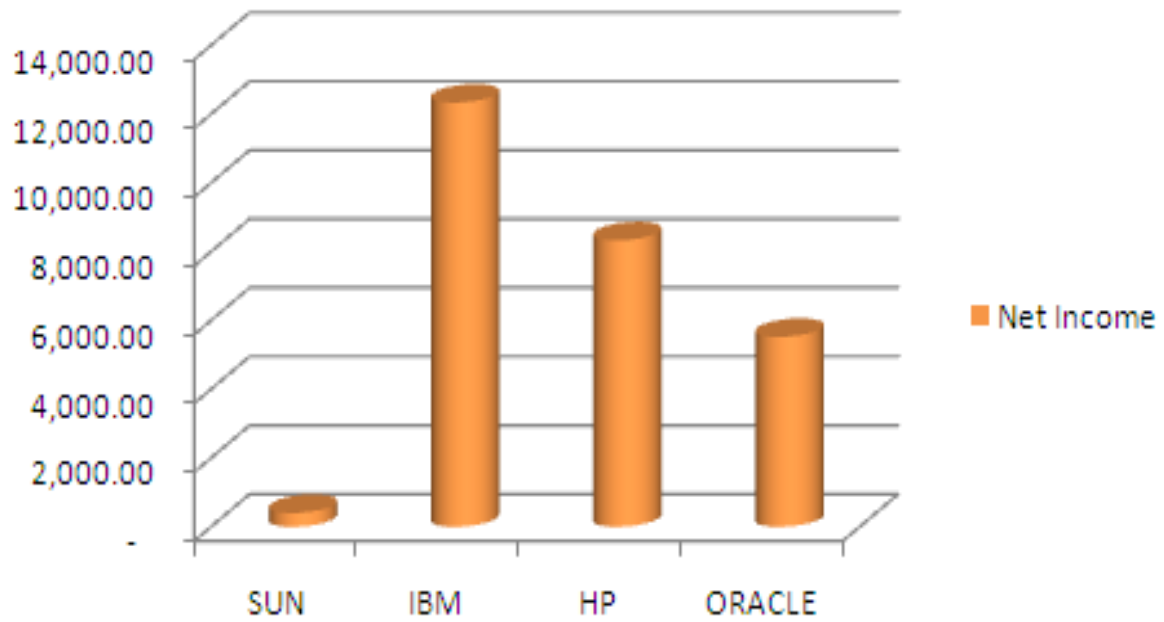
(2) Worldwide Unix market shares, 1998 (percent)

The above competitive environment was for the years that sun was shining among its competitors. Later on, after 1998 sun Microsystems started to lose its market share due to some problems which will be discussed later. The following are the data for sun Microsystems and its competitors' financial report in 2008 which clearly you can realize the bad position which sun Microsystems is standing on compare to its competitors. We have analyzed the total asset, net income, cash flow/ liabilities and Research and development expenses that has incurred for sun Microsystems and its competitors in 2008.

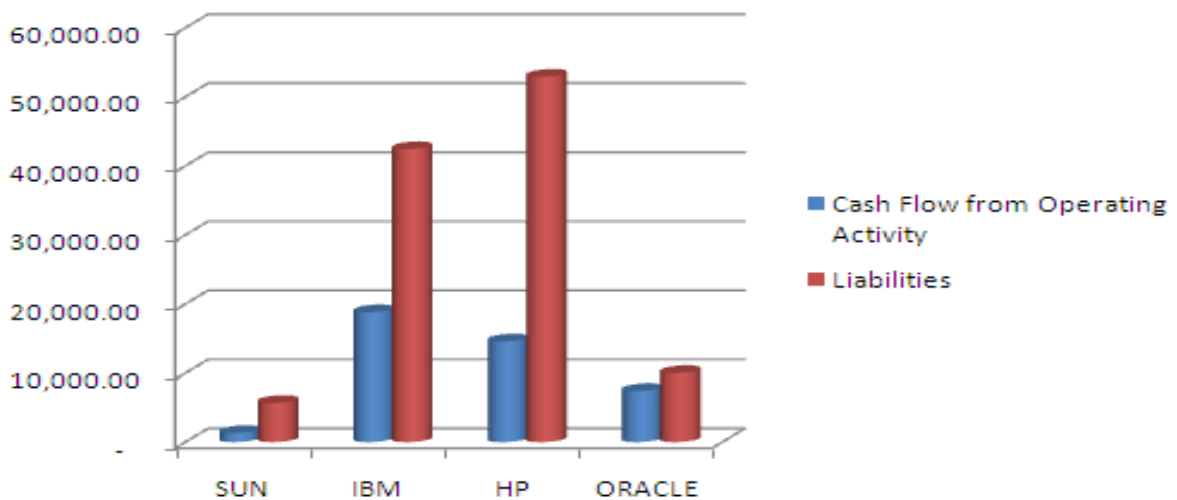
Total Asset

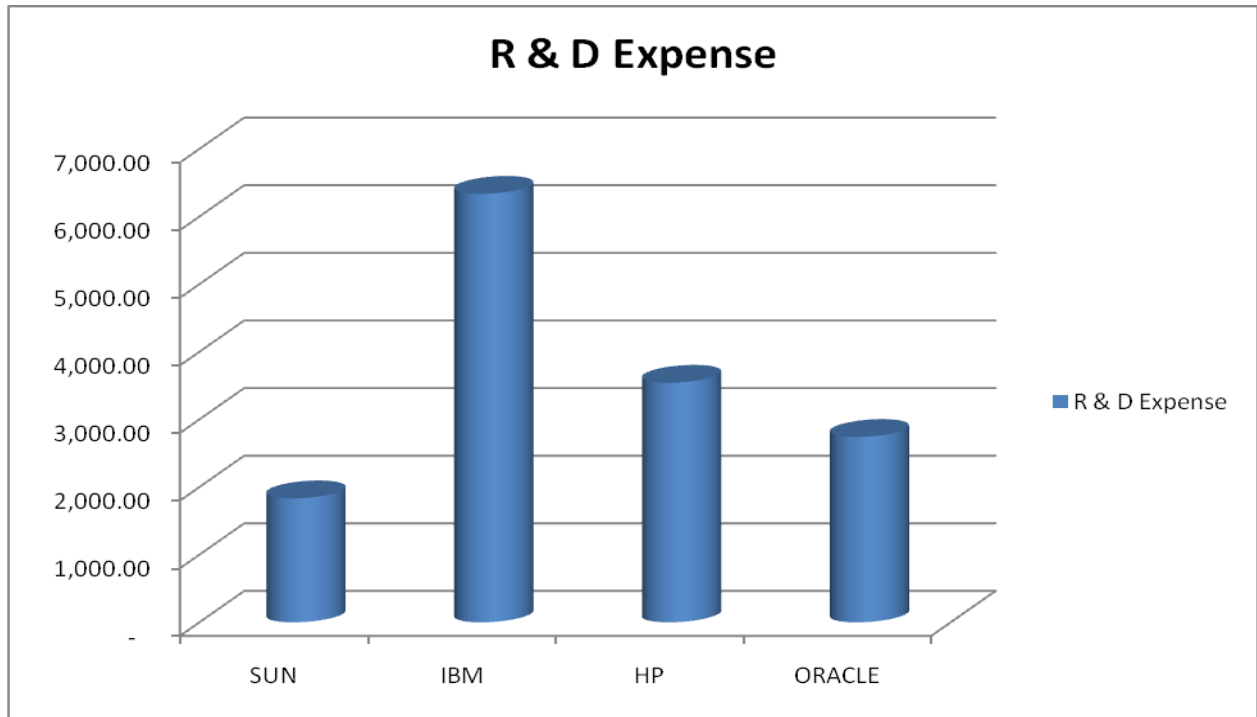


Net Income



Cash Flow/Liabilities





The above charts are clearly describing sun Microsystems bad financial situation in compare to its competitors. It is obvious that sun Microsystems has lost its market share, its sale and its revenue from its old market.

Sun Microsystems's Competitive Environmental Trends

The predictions say that nine of the fifteen largest economics in the world will become the developing countries by the year 2020. Countries like Russia, China, and India are becoming powerful countries that can compete with developed countries. Nowadays, Chinese products start a price battle all around the world.

New and high technologies will change environment. Companies use high-tech industrial machinery for decreasing cost and offering high quality goods and services to customers.

In addition, many companies move into other countries and market. Globalization has been increasing in recent decades. Lowering labor cost and acquiring new customers are two main reason that stimuli companies for entering new markets.

Environmental friendly is another issue that governments and societies focus on in recent decade, and should be increased in future.

Sun Microsystems: Summary of attractiveness of External Environment and Industry Analyze

External environment appears to be more challengeable, profitable and for sun Microsystems. Although, there are some large competitors in every industry it operate in, sun Microsystems can compete with them with their capabilities and resources. But it must be more careful about environmental change and they have to implement stronger strategies.

As we have mentioned before, sun Microsystems is facing some financial difficulties and some other problems within their organizations which will be discussed later on in this paper but the point is sun Microsystems is still able to cover up its loss and get itself strong as before since the external environment and the Industry is so attractive but of course challengeable. Sun Microsystems can get back into the battle with more caution and stronger strategies and financial condition.

Sun Microsystems's Strategic Analysis

1. Key Success Factors

Sun attributes the success of this program to the following key success factors:

➤ Designing it right up front

Three months were spent on analysis and design of the solution, which helped focus the program scope and avoid any major changes in the later stages of the program.

➤ **Solid project management**

Sun utilized the Prince 2 methodology for project management with Project Board. Project plans and milestones were used throughout the program and there were dedicated project managers for each separate component of the implementation. 11 Sun Strategy and Approach

➤ **Thorough communication**

Bi-weekly status reviews with executives and periodic reviews with auditors helped provide high visibility keeping the program on track and allowing the team to request additional resources or support when needed.

➤ **Small dedicated and empowered team**

Sun used a small multidisciplinary core team and gave them full responsibility and authority get the job done. The core team also had access to additional resources when specific expertise or help was needed on a project.

➤ **Strong executive support**

The program was very important to Sun's business and thus had strong executive support, which helped to get resources and support as needed.

2. Sun Microsystems' Strategy in the business Level, Corporate Level and Competitive strategy



According to strategic management there are only five categories that companies are able to fit. By studying the above strategies we have realized that sun Microsystems is following the differentiation strategy since they are concentrating the most on their research and development department and are working hard for new innovations. This means that their strategy is to be different among their competitors. They are always eager to add a new value to their customers and they want to be differentiated.

Since their strategy is to be different than their competitors, sun Microsystems is focusing on growing business with companies that will use the Internet to dominate their markets (such as telecommunication providers and Web 2.0 companies), as well as appealing to companies that are primarily focused on reducing IT costs (although, at this time, Sun's installed base contains more of the latter than the former). Sun is betting that as more of the world goes online, more IT infrastructure demand will occur and Sun will get more than its fair share of this increased demand, due to its creation of Java and Solaris and its loyalty in the developer community.

Sun's strategy is built fundamentally on an aggressive R&D investment (on which it has spent more than 14% of its revenue since 2002). This above-industry-average level of investment

is a result of Sun's belief that it must create and own unique intellectual property (IP) – spanning microprocessors, middleware software and an operating system – as the core of its value proposition.

Sun's strategy combines traditional elements (selling servers, storage and services) with unconventional elements (for example, providing its software stack at no charge for many purposes; offering its software stack, including support, via a per-employee software subscription; and using partners to deliver the majority of its services). Sun's business model is ahead of the industry, but not without risk. Converting free software downloads, especially Solaris, into an ongoing revenue stream has proved challenging for Sun. However, Gartner believes that Sun's forward-looking strategy is appropriate and can be a major competitive differentiator.

Free software is not – in itself – a differentiation for Sun, but it can lead to differentiation. Potential customers have shown that they are willing to try portions of Sun's Enterprise Software stack if no initial cost is incurred, thus putting Sun on several shortlists on which it might not have appeared without the free option. Once the company decides to acquire supported licenses, Sun sells them only the parts of software that have proved useful to the customer. For this strategy to succeed in the long term, Sun must deliver “good enough” technology while gaining increasing attention for its IP and technology offerings in open-source communities. This is where most of the customers seeking to experiment with free software get started. The introduction of technologies such as Solaris to open source grows Sun's IP, as well as its position in the open-source mind-set and community.

Sun Microsystems's Business Model in three different strategy levels

In business level strategies we have come up with the following points for sun Microsystems firm:

- ✓ Aggressive R&D Investment
- ✓ Unique Intellectual Property
- ✓ Strong Financial Situation
- ✓ Decreasing the production , R&D & Administration Cost and Expenses

The followings are the sun Microsystems's competitive strategies:

- ✓ Effective CRM, PRM
- ✓ Innovation
- ✓ To become the Industry Leader
- ✓ To Concentrate the efforts on the Markets with Huge Potential

And corporate level strategies for sun Microsystems are according to the following points:

- ✓ Increase the Market power by reducing the primary and supportive costs below the competitive level
- ✓ Alliances & Partnership
- ✓ Multipoint Competition

3. Core Competencies

Sun Microsystems core competencies are determined as following:

- Financial Strength
- Research Capabilities
- Brand Management

Sun Microsystems Resources

➤ Tangible

- Financial Resources
 - Cash Resources
 - Operating Revenues
 - Financial Leverage
- Physical Resources
 - Location Size
 - Property and Equipment
 - Distribution Channels

➤ Intangible

- Organizational
 - Brand Equity
 - Strong CRM
- Reputation
 - Reputation
- Innovation
 - Strong R & D
 - Intellectual Property
- Human Resources
 - Knowledge workers
 - Management Capabilities

➤ Value Chain Analyze

As a manufacturing company Sun Microsystems basically follow the standard value chain process of most such manufacturing companies. However there are certain parts of SUN operations that create value and consider as a source of competitive advantage to SUN.

It should be emphasized that the main strategy of SUN is primarily technology driven, However some industry observers also pointed out that SUN businesses are market-driven and hence in the following section we will focus on evaluating the SUN Marketing and sales and R&D activities as the main source of creating value to the company and establishing a competitive advantages.

Summary of the Value Chain

Marketing & Sales:

- ✓ Numerous distribution channels: directly to users, wholesalers, retailers, distributors, dealers -around the world.
- ✓ SUN Built confidence with those involve in distribution channels, Long association with skilled marketing and sales representatives

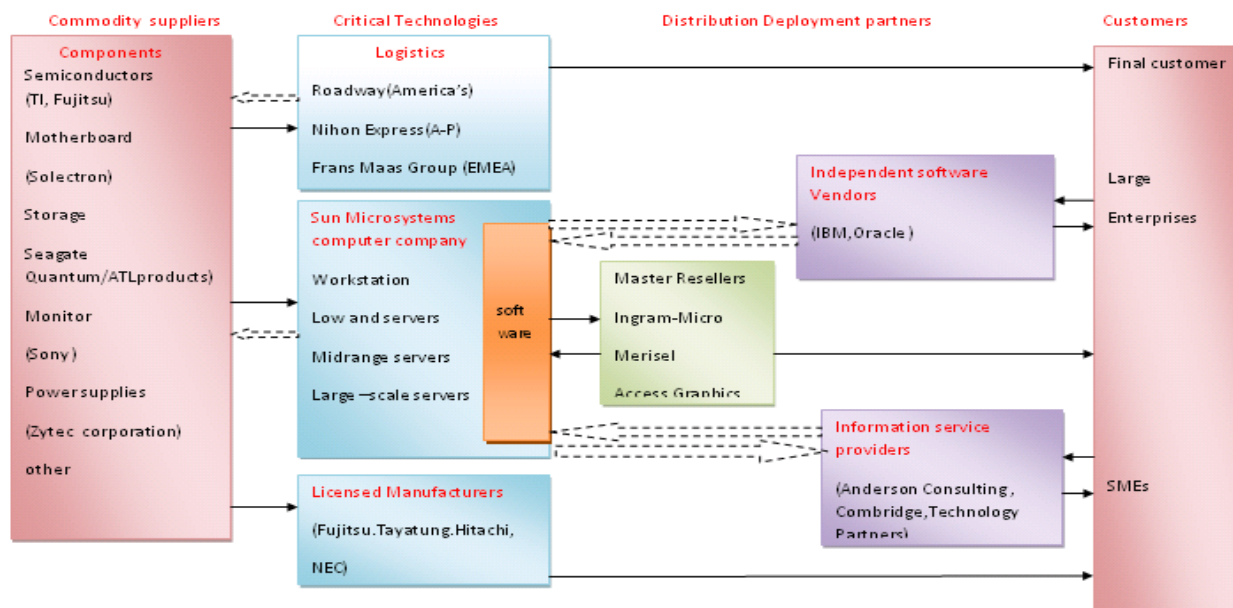
Operation:

- ✓ Confidence contributed significantly to Sun's position and to its growth

Service:

- ✓ Strong customer relationships
- ✓ Improve quality
- ✓ Friendly Ordering Service
- ✓ Faster Delivery Service

Sun Microsystems's extended value chain



Financial:

Beginning with the collapse of the “dot-com” bubble in 2000 to 2001, Sun struggled with steep revenue declines and only occasional profitability. When Jonathan Schwartz became CEO in May 2006, he and CFO Mike Lehman announced a plan to return Sun to profitability by the end of Sun’s 2007 fiscal year (30 June). Revenue had already started to improve, with an 18% improvement from FY05 to FY06, driven in part by the acquisition of StorageTek in August 2005. Without the benefit of large acquisitions, Sun’s revenue has grown 11% in the first half of the company’s fiscal year 2007. Gross margins have steadily improved, from 41.5% in FY05 to 43.1% in FY06, and 44.4% in 1H07. Because of the cost reductions in staff and real estate implemented since May 2006, Sun’s R&D and selling, general and administrative expenses have been reduced from 46.6% in FY06 to 43.2% in 1H07. Although Sun reported a profitable 2Q07 and appears to be on track to showing a profit in the quarter ending 30 June 2007, these are still the early days of Sun’s turnaround story.

Marketing and Sales

Sun's products are sold through numerous distribution channels, including directly to users and through numerous wholesalers, retailers, jobbers, distributors and dealers in a wide variety of trades in many countries around the world.

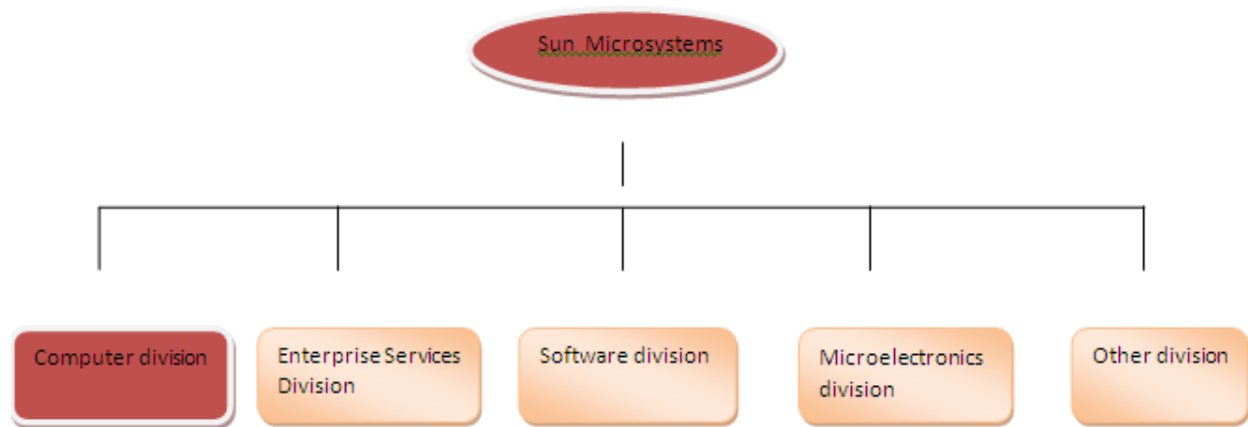
Management believes the confidence of wholesalers, retailers, jobbers, distributors and dealers in SUN and its products – a confidence developed through long association with skilled marketing and sales representatives – has contributed significantly to SUN's position in the marketplace and to its growth.

Organization:

Sun consists of five major divisions: Sun Microsystems Computer Company, Sun Service, SunSoft, Inc., Sun Microelectronics and Java Soft. The bulk of Sun's revenues come from the Sun Microsystems Computer Company, which accounted for 73 percent of total revenues in fiscal 1997.

Sun Service, which provides system support, education, consulting, system integration and network management, accounted for an additional 13 percent and is integral to the success of Sun Microsystems because it provides service and support for the more than 700,000 Sun systems deployed in 190 different countries around the world and trains about 75,000 people annually in the use of Sun systems and software.²⁰ In contrast, Sun Microelectronics, SunSoft and Java Soft each contribute about 5% of Sun's revenues. They are strategic divisions which are essential to Sun's proprietary technologies and its strategic positioning aimed at product differentiation.

Sun Microsystems organization:



Solaris:

More than any other single product or technology, Solaris is Sun's "big bet." Sun is betting that it can provide sufficient differentiation from competitive operating systems and sufficient attractiveness for developers to generate a stream of revenue from hardware sales and software support. Due to its market share lead in the Unix market, the size and vibrancy of its independent software vendor (ISV) software portfolio and its technical quality, we rate Solaris a "strong positive".

Open Source:

Sun is arguably the premier contributor of key technologies to the open-source movement (with IBM being its largest competitor). From Open Solaris, to middleware, to Java, Sun has delivered innovative code into this community.

Technology:

Since 2002, Sun has spent more than 14% of its revenue on R&D. This above-industry-average level of investment is a result of Sun's belief that it must create and own unique IP as the core of its value proposition. Solaris, Java and UltraSparc are the highest-profile examples of this

strategy. Sun's identification of and investment in key technology trends, such as multithreading, multicourse and power conservation (well before they became mainstream), is impressive. The newest examples of Sun's innovation include designing the Niagara 2 Processor to incorporate 10 Gigabit Ethernet on a chip, and the portable Blackbox data center.

Pricing:

Sun's pricing strategy is well-aligned with its business strategy. It is moving toward greater simplicity and continues to be innovative. Its product and service prices are comparable to competitors; most of its software is available at no cost. Like most IT providers, Sun reluctantly participates in reverse auctions, offers products on its Sun store Web site and certifies used equipment for resale.

Sun has been moving away from a standard licensing model – a case in point being its operating system, Solaris, which is available at no cost and can be run that way indefinitely, although most enterprise customers see the value in buying a service contract that includes updates and support. Sun's trying and Buy program, plus one for startup companies, has brought new customers that have never dealt with Sun before.

Professional and Managed Services:

Sun services are designed primarily to support technology at the network, infrastructure and middleware layers, and are used mainly to design, implement and manage its customers' heterogeneous systems. During the past year, Sun services began to rationalize and shrink its portfolio of offerings; it still has work to do in this area to match the efforts of its competitors. The advantages of service simplification, although painful to design and execute, far outweigh the costs. Sun continues to lead traditional competitors in terms of technology and service-provider-supplied managed services.

Customer Service/Support:

After 15 years of having the iForce partner program in place, Sun launched a new program called Partner Advantage in July 2006. More than 60% of Sun's overall revenue comes from indirect sales channels – less in the U.S. and up to 90% in some Asia/Pacific countries – and that number is forecast to increase. These program enhancements enable Sun to better leverage its overall scale in the market, service its channel partners more effectively and align its channel strategy much closer to the business units. This is the first time in Sun's history in which everyone is “reading out of the same play book” when it comes to the company's indirect channel partners.

As part of its relationships with the largest consulting and systems integration firms, Sun is investing R&D in co-developing unique IP assets, as well as co-marketing, co-selling and co-delivering solutions. However, there is room for improvement in Sun's relationship with the global integrators in terms of coverage, reach and sales integration.

Developers:

Developer influence from Sun-led initiatives is second to none in the industry. Although corporate developers do not gravitate toward Sun tools or products, the large body of ISV developers, open-source developers and hobbyists gain from Sun's support of community development efforts. Java.net, java.sun.com, Net Beans and Java (as evidenced by the popularity of JavaOne) all represent significant efforts that Sun has delivered to developers.

Production/Supply

Sun uses third parties to manufacture most of its products, and to improve on their design. It outsources the bulk of its manufacturing to a few contract manufacturers and suppliers in order to get economies of scale in production. For example, in 1994 Sun had fewer than 1,000 line employees involved in internal manufacturing out of 13,000 employees worldwide.²¹ The Spark

microprocessor is manufactured totally outside of Sun by Texas Instruments and Fujitsu who produce in volume and sell the chips to other licensed vendors as well, thereby reducing Sun's material costs. Sun also contracts out their board manufacturing to Solectron, their storage and disk subcomponents to Seagate Technology and Quantum (ATL Products), their power supplies to Zytac Corporation and their monitors to Sony. Sun generally does not buy fully finished systems; rather it uses two major approaches to outsourcing for its own production.

1. Buy components, assemble in house. This approach was adopted early in Sun's life as it partnered with suppliers who make integrated circuits, networks or other components needed to keep Sun's products leading edge. Sun believes that not having to bear the investment cost of supporting capital infrastructure makes it

faster on its feet. In return, Sun helps its partners by sharing information about its intended technical directions and by being the largest purchaser of new technology.

2. Make and buy components, assemble in house. Sun has adopted this approach for key components such as CPU boards. Sun's purpose in using this dual model is not just to provide extra capacity, but to ensure it understands the technology and can effectively perform design for manufacture and testability. This approach also allows Sun to maintain higher utilization of its manufacturing capacity, outsourcing only that portion of demand which exceeds internal capacity.

It also helps Sun to control costs internally and externally through cost comparison and cost reduction requirements and to develop new technologies in secret. Standardization is widely used to lower costs and obtain economies of scale in production. Sun uses industry standards, standard components and standard suppliers everywhere but in its proprietary technologies. For example, the same power supplies and system boards are used in low end and midrange servers and at the

low end Sun uses their offering as both workstations and servers thereby spreading the cost across two families of products.

Distribution:

Sun's sales efforts are about equally divided between the direct and indirect channels, with each channel dealing with demand generation, presales, closing, deployment and support activities. Direct sales are made through sales representatives (43 percent of revenue), telesales (5 percent), and the Internet (negligible as Sun only started selling in January 1998). Sun maintains 80 sales offices in the U.S. and an additional 88 offices worldwide to serve 1,500 large accounts,²⁴ including businesses, governments, education institutions, and software vendors. The direct sales rep's primary role is to service Sun's large accounts and to assist Sun's business partners in fulfillment. Sales managers and reps compensation is channel neutral to reduce potential channel conflict with distribution partners. About 52 percent of revenue is from the indirect channel, mainly three master resellers (Ingram-Micro, Merisel and Access Graphics) who sell to about 4,800 small and medium enterprises, and systems integrators, VARs, OEMs and independent distributors who service remote locations and smaller customers.²⁵ Sun makes limited use of the retail channel. Sun maintains 27 Solution Centers worldwide for presales and post-sales support of its sales staff, business partners and end user organizations. The Solution Centers, which are staffed with systems engineers, professional services consultants and trainers, are often opened jointly with business.

Integration Services and Support:

Sun relies heavily on third parties for integration services and support. Ten major independent software companies are strategic software partners with the Sun Service Division. These include: Baan, BEA, Computer Associates, Informix, J.D. Edwards, Lotus, Netscape,

Oracle, PeopleSoft, SAP, SAS Institute, Sybase, Tivoli and IBM. Sun also has strong relationships with the leading consulting companies including KPMG, Price Waterhouse, Andersen Consulting, EDS, MCI and Cambridge Technology Partners, Perot Systems, Ernst and Young, CSC, Cap Gemini and Deloitte ICS.²⁷ Sun recently used Andersen Consulting to assist with re-engineering of its own key business processes and implementation of a new IT infrastructure through the Sun Peak project. The foregoing system of relationships between Sun and the major players in its extended value chain.

Strong customer relationships:

Customers rely on SUN not only for innovative, high-quality products, but also for solutions to other important needs. SUN help customers improve quality, streamline manufacturing processes, comply with regulatory requirements and strengthen their businesses in other ways.

Sharper focus on customers

As part of SUN efforts to be the preferred supplier, SUN:

- aligns its business around common industries, markets and distribution channels
- provides convenient access to a wide range of SUN products, services and technologies
- helps customers improve quality, streamline manufacturing processes, comply with regulatory requirements and strengthen their business in other ways
- invests in highly efficient order processing, inventory control, shipping and logistics systems

From those points, it can be suggested that SUN's businesses is market driven as well as science or technology-based as we will see on the following section

Technology: R&D at SUN Company

Sun's technology portfolio and process capability were at the core of its unique business model. By sharing technologies, manufacturing operations, brands and other resources across its businesses and geographies, it increased speed and efficiency

SUN technology platforms were the thread that wove together the company's diverse business. It was their interlocking and sometimes overlapping nature that set SUN apart from other companies. It is observed that Sun's remarkable breadth of technologies, along with its ability to combine them to create a steady stream of groundbreaking products, made it unique. Hence it should be clear that Sun's businesses are mainly technology driven. Hence in this section Sun's R&D activities, efforts and capabilities are evaluated Basically SUNs invest heavily in its Asian facilities and in south of America Japan and Taiwan capabilities. In 2002, it began relocating its R&D and manufacturing capabilities for high-end optical components from USA to KOREA With the move, a new R&D focuses for optical and a telecommunications market has surfaced for the company. We can see that SUN is following the trends of the market and the technology as well.

SUN Company has a strong focus on research and development (R&D) and has consistently invested in it for the past few years. The company's R&D expenditure as a percentage of sales accounted for 9-10% in 2007. The company's R&D capabilities, with its

strong knowledge and understanding of technologies. The company's strong R&D capability provides it with a competitive advantage and helps it to innovate and launch new products.

Sun Microsystems's Sustainable Competitive Advantage

The followings are the competitive advantages that sun Microsystems hold in compare to its competitors:

- Strong R&D capability
- Strong partners
- High quality performance

Sun focus its internal activity on R&D, marketing, design, and services support. It maintains design and development responsibility for those components and systems where it is important to be first-to market, maintain technical leadership and achieve system integration. Its R&D spending is around 9-10% of net revenue. It is high than other competitors, because Sun develop its own proprietary technologies. Sun has licensed technologies to other companies in Japan, Taiwan in an effect to gain additional revenues.

Sun strategy is focus on the platform and enabling technology and partners with a few suppliers for manufacturing and with independent software vendor, Sun has made availability a big issue especially as it has moved into large-scale servers. By making its technologies open in this manner, Sun has hoped to increase the size of business ecology. The number of companies that have a stake in Sun success because they write end user applications and other software manufacturer hardware, distribute sun products, integrate and install hardware and software in user companies, provide maintenance and support, train experts and users, or consult on how

business can use sun technology for their operational effectiveness and strategic positioning to gain competitive advantage.

Delivering high quality performance enabled Sun to improve the company's already high standards of services excellence and streamline its global services parts net work for optimal operating performance. Sun world-class services organization supports that success by consistently delivering high-availability service for their enterprise-class users.

Sun Microsystems's SWOT Analyzes

STRENGTHS

According to our analysis of the sun Microsystems case we have determined the following strengths for the sun Microsystems Company:

- Strong Research & Development Capabilities
- Diversified business portfolio
 - 3 business segments
 - Protect itself against demand fluctuations
- Being as the first mover in universal software platform, designed for the internet and corporate intranets.
- Innovation
 - Java enables developers to write applications to be run and developed on any platform.
- Geographical Coverage
 - Having 170 Offices worldwide

WEAKNESSES

According to our analysis of the sun Microsystems case we have determined the following weaknesses for the sun Microsystems Company:

- Poor Financial Management
- Less Capability in Speed compare to other competitors
 - Java Programming from Sun Microsystems is not as fast as standard C++ and other languages similar to C/C++.
- Losing its market share to Microsoft
 - Has a smaller market share than the leading software company in the world – Microsoft.
 - Microsoft powers at least 90% of all workstations worldwide.
- Cannot handle all types of customer segments
 - Sun's hardware and software do not target home users, only users with high volume and high traffic data transactions.
- Expensive Products & Customer Sensitiveness to Price
 - Customers are becoming more price-conscious after the tech sector slow-down and are no longer willing to shell thousands of dollars for a Sun Server when alternatives are to buy similar competitor servers for thousands less.
- Wrong Management Strategies

- Main focus is to battle Microsoft in the software market than compete their strength of hardware to its competitors IBM, HP and Dell.

OPPORTUNITIES

According to our analysis of the sun Microsystems case we have determined the following opportunities for the sun Microsystems Company:

- Joining with some partners who have strong Financial Condition
- Decreasing their Costs & Price
 - Worldwide telecommunication costs are becoming inexpensive and open new markets as people connect to the Internet
- Adapting themselves to new Cellular Phone Technology
 - As mobile cellular phone technology increases, the Java programming language can be utilized to develop applications for upcoming cellular products.
- Customer unhappy with windows blue screen of death
 - Unix dominates high-end mission-critical applications and its customers do not believe Windows can handle these operations due to the excessive “blue screen of death syndrome”

THREATS

According to our analysis of the sun Microsystems case we have determined the following threats for the sun Microsystems Company:

- Microsoft new Office Suite
 - Microsoft dominating the software market. Sun's own version Star Office is being trampled in respect to popularity to Microsoft's Office suite.
- Customer Switching Cost & User Friendly Issues
 - More users converting over to a free operating system like LINUX rather than its own operating system: Solaris.
- Currency Fluctuation
 - Currency exchange rates affect demand for application/operation software and hardware and fluctuating currencies can negatively impact revenues in the global marketplace
- Competitors Alliance
 - IBM's adoption of the free operating system Linux competes with the proprietary operating systems of Solaris and Windows NT technology and attacks its market share for workstations.
- Economical Fluctuation in US

- Recession or economic slowdown in the U.S. or global market impacts workstation and high end server equipment sales and their need for operating systems

TOWS MATRIX for Sun Microsystems

		<p>1- Strong R & D</p> <p>2- Diversified Business Portfolio</p> <p>Strength 3- Being as the First Mover</p> <p>4- Innovation</p> <p>5- Geographical Coverage</p>	<p>1- Poor Financial Management (Lack of Financial Resource)</p> <p>2- Less Software Efficiency Compare to Competitors</p> <p>Weakness 3- Not being able to handle all types of Customers</p> <p>4- Expensive Products & Customer Sensitiveness to Price</p> <p>5- Wrong Management Strategy</p>	
Opportunity	1- Looking for Financial Supports Sources	S _{1&4} O ₃	W ₁ O ₁	
	2- Decreasing their Costs & Price		W ₄ O ₂	
Threat	3- Adapting to New Cellular Phone Technology	S _{2&4} O ₅		
	4- Attract Unhappy Microsoft Windows users			
	5- Innovate some new servers to adapt both Linux and Unix			
	1- Microsoft New Office Suit		S ₂ T _{3&5}	W ₁ T _{3&5}
	2- Customer Switching Cost & User Friendly		S ₅ T ₄	W ₃ T ₂
3- Currency Fluctuation		W ₄ T ₂		
4- Competitors Alliances		W ₅ T ₄		
5- Economy Fluctuation in U.S.	S ₄ T ₂			

The above matrix explains us the intersections that is happening between the strengths , weaknesses, opportunities and threats of sun Microsystems enabling us to analyze the best sectors that sun Microsystems is really strong and can convert its strength to available opportunities and also the worse situation which the competitors threat sun Microsystems and

attack to their weaknesses. Moreover, we can realize the points that the weaknesses meets opportunities and also those points that threats meets strengths of the sun Microsystems.

Sun Microsystems's Problem Statement

In such intensive rivalry all around the world, the big companies cannot guarantee their stability any more. Sun Microsystems also at some point got lost in this competition and stood behind. However, at the beginning sun Microsystems was performing significantly but always the sun is not shining for the big companies such as sun Microsystems. Sun Faces many problems recently and forced it to stay back in the market and lose its share market to its competitors. The followings are the problems that inhibit sun Microsystems shining days to move on and continue:

- Poor Financial Situation
- Lack of Correct Strategy Management
- Competitors New Innovations
- Losing their Market Share
 - Expensive Products
- Staying behind of their competitors

Recommendations on Business Level Strategy for Sun Microsystems

Generally, it is a bit difficult to make very precise recommendations without actually knowing how the internal operation of sun Microsystems works. However, we do have a few suggestions that may want sun Microsystems to start to think about.

- Improving their Financial Situation by Selling their Stock Share or attracting Investors to bring more money in.
- Employing more expert workforce such as management experts, technicians and developers.
- Re considering their Strategies and focusing on their Strengths and Weakness instead of looking for reactions to competitors and also **Doing the right thing, Not doing things right.**

Recommendations on Competitive Strategy for Sun Microsystems

Sun Microsystems shall not only consider on creating new product it has to think about the following issues as well:

- Research and development department should Stopping those product lines which are not profitable and mainly focus on their main product line
- Move into Untouched Markets

Recommendations on Corporate Level Strategy for Sun Microsystems

As for Sun Microsystems corporate level they have to follow the following recommendations:

- Make partnership with Partnership with big suppliers of hardware or make partnership with developed software companies or corporate with them in order to stabilize itself in the market which he is pushed behind during last few years.
- Moreover, sun has to make corporation with other developers in other companies in order to reduce their manufacturing costs

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References

1. Sun Microsystems, *Scott Jacobs & Prescott C. Ensign, The University of Western Ontario 2006*
2. http://www.oracle.com/corporate/investor_relations/earnings/10k-2008.pdf
3. http://media.corporateir.net/media_files/irol/71/71087/HewlettPackard_2008_AR.pdf
4. https://materials.proxyvote.com/Approved/866810/20080924/CMBO_27948/HTML2/default.htm

5. <http://www.ibm.com/annualreport/2008/>

6. www.sun.com