

Measuring the Impact of Career Development on an Organization

Sun Microsystems Inc.

By Ron Elsdon and Seema Iyer

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Abstract

In the fast paced world of high technology, raw people talent separates the winners from the losers. Today skilled employees can move easily from company to company. Organizational survival depends on securing and retaining this talent. One key motivator connecting employees to the organization is through their career development. This helps align employee fulfillment with the needs of the organization. This case looks at measuring how the organization benefits from investing in employee career development, and the paradox of how equipping employees with greater self determination enhances retention.

Background

At the core of high technology development today are those organizations that create hardware and software products to enable network computing. The heart of this industry is in Silicon Valley, California. As with many concentrated industries a local infrastructure has developed that includes companies up and down the supply chain, competitors and support service organizations. This industry sector is growing rapidly. For example, revenue growth averaged 18% per year between 1993 and 1998 for Sun Microsystems Inc., a major player in this sector and the subject of this study. The competitive stakes are high with Sun in an intense battle with Microsoft around system standards and proprietary software applications. There are major pressures to recruit and retain employees. Sun hired over 5000 new employees in 1998 with many in high demand areas such as software development. There are few barriers to movement of people from one organization to another and competitive strength comes from the knowledge of the workforce. As 3Com's chairman and CEO Eric Benhamou observed recently "I'm much less worried about one of our competitors stealing the designs of our latest product than I am about one of our competitors stealing our best minds". Companies that successfully develop processes that aid in employee retention enjoy competitive advantage. This case describes the evolution of such a process, career development in an organization, and how to measure the benefits. It also explores how to predict the optimum amount to spend on such activities.

Organization Profile

Sun Microsystems Inc. was founded in 1982 by four people in their mid-20s, recently out of college. According to Chairman and CEO Scott McNealy, a founder, these four didn't know what they couldn't do, so they went into this competitive arena and succeeded. "Kick butt and have fun" is McNealy's message to the employees. Sun's culture is about having fun while employees work hard at innovation and at creating the future. Sun's global headquarters are in Palo Alto, California linking to over 28,000 employees in 55 countries. Sun is a global leader in enterprise network computing with almost \$10 billion in revenues. While Sun's name is synonymous with Java, it's products range from workstations and servers to software services.

More than a decade ago, Sun copyrighted it's slogan "The Network is the Computer", a vision which is now

ubiquitous. Sun provides enterprise wide solutions to businesses enabling them to leverage information resources in a stable operating system environment. This is an area where competition for employee talent is fierce. The company is currently organized into product-based divisions, which are independent yet aligned. Supporting these divisions are core Human Resources (HR), Finance, Legal and IT services provided by a Corporate Resources group. The role of HR is constantly refined to add greater value to the organization and to keep up with the fast pace of change. HR at Sun promised to deliver a competitive workforce, competitive organization and a competitive workplace, commonly referred to as the WOW strategy within the company. HR provides a gamut of services, from conventional compensation and benefits to fitness programs, and, of primary interest here, Career Services. Measurement of the outcomes of delivered services and their refinement is an important element of the Sun culture.

In the time from mid-1996 through mid-1998, while the high tech industry experienced high employee turnover, Sun maintained single digit voluntary turnover, in spite of the workforce growing by 20% worldwide, each year. Sun invested in understanding what attracts a person to the organization and what will retain them. Among the top contributors to attraction and retention were Work Challenge, Career Development, Financial Opportunity, Work Variety, and Commitment to People. The importance of Career Development has been reiterated by a number of satisfaction surveys and by comments from employees. In an environment of rapid change and little hand holding, it is a big challenge to provide a middle ground between defined career paths and "figure it out for yourself" development. Working with the Career Action Center, a Cupertino based non-profit organization, Sun developed an approach to support employees in becoming career self-reliant and identified measurable benefits to the organization.

Career Development in Organizations

The relationship between employees and organizations moved from the paternalistic, job-for-life, corporate model in the 60s, 70s and early 80s, to a free agency model. Responsibility for career development lies first with the employee. The organization is responsible for providing support and growth opportunities. Silicon Valley companies in general, and Sun in particular, have embraced this change, matching, as it does, the preferences of the generations entering the workforce in the latter part of the 1980s and in the 1990s. In this new world the question arises as to how the organization can best provide support. In Sun's case Scott McNealy views career development as "51% the responsibility of the employee and 49% the responsibility of the company". But what goes into the 49%, and how does the company track the value from this investment? Sun sought the support of The Career Action Center in answering these questions.

How Career Services at Sun Microsystems Developed

A great strength of Sun's approach to employee development is long term commitment. This means continuous evolution and improvement in the process. Within Sun, the primary support resource for employees' career development is called Career Services. This consists of career counseling provided as a benefit to employees by Career Action Center counselors. The current approach evolved from the first career center, which opened at Sun in 1991, with an initial focus on the manufacturing area and on equipping employees to deal proactively with redeployment. The center provided employees with career counseling, built around the concept of employees taking primary ownership of their career direction, supported by the organization.

This led naturally to the next evolution. Within 18 months the focus of the center and its counseling moving firmly to on-going career management provided as a benefit to all employees. At this point responsibility for the center moved to the Human Resources department, with the Career Action Center continuing to be responsible for advising on, and delivering the services. The reach of the counselors was broadened with services being offered at multiple Sun locations around Silicon Valley. Primary activities shifted from items

such as resume creation to supporting individuals explore their career aspirations. This included expressing them in development plans aided by assessment instruments and workshops. The evolution of Career Services continued with an expansion in the number of counseling sessions available as a benefit to employees from two to four; inclusion of telephone counseling to reach a distributed population; dispersion of five counselors to separate locations at different Silicon Valley facilities and one on the East Coast, and increased emphasis on tracking both the ability of the services to reach the Sun population and on measuring outcomes. Today, Career Services is designed to help employees make well informed career choices and match their aspirations to opportunities within Sun. The primary delivery approach is career counseling coupled with supportive resources and events such as 1-2 hour presentations tailored to employee needs.

Employees are informed about Career Services through a variety of channels. These include: Sun's web site, career talks, e-mail, new hire orientation, presence at employee events, by locating the counselors' offices close to high traffic areas, and by the counselors linking closely with local Human Resources representatives. According to Carol Guterman, Sun's manager of career services, employees seek services that are comfortable to use, confidential and accessible. The current arrangement addresses these elements.

The Assignment

Career Services was clearly helping individuals in their development based on their feedback to level 1 questionnaires. However, how was the organization benefiting and what was the return on the investment for this service? Sun's vice president of human resources was anxious to know the answer to these questions to make decisions about where Sun's Human Resource dollars could be best spent. At the same time, the Career Action Center saw the benefit to the career field and the community, of better understanding the links between work with individuals and its impact on organizations. Consequently, the organizations decided to begin a joint study to look at the impact.

The Participants

Seema Iyer brings much experience in demographics to her position as Human Resource Metrics specialist at Sun. By creating this position Sun showed a commitment to using measurement to inform practice, and a willingness to step outside of the conventional box by bringing Seema's skills to the company. Seema brings an analytical skill and, being a recent hire, an outside perspective that encourages and supports new approaches. Seema is well supported by her boss, Lora Colflesh, who is continually seeking to understand how her resources can be applied most effectively. Ken Alvarez, then Sun's Executive Vice President of Human Resources, was a strong supporter of using metrics to enhance the effectiveness of Human Resources. Carol Guterman, the recently appointed Sun manager of Career Services, is also very open to new ideas and encouraging of the project as were her bosses Gloria Debs and Susan Solat. Ron Elsdon, of the Career Action Center, brings a combination of analytical knowledge gained in technical and business settings, and career and counseling knowledge from his recent move into this area. His goal was to develop an analytical approach that supports Sun's needs and informs the career field. Ron's boss Diane Saign supported the project and assisted in securing funding, recognizing that this represents a new area for the Career Action Center. Diane sees this as an opportunity for the Center to establish a new area of expertise. Cynthia Brinkmann, the Career Action Center's manager of the account relationship with Sun, and a member of Ron's organization, has been a driving force for the Career Services activity and also wishes to explore the measurable effect of the work. Overall, both organizations supported the project and the principals (Elsdon and Iyer) were committed to developing and implementing an effective design. The greatest difficulty is that this is a step into the unknown with little to draw on from previous work.

Problem Definition

The study began with the intent to understand the following connections:

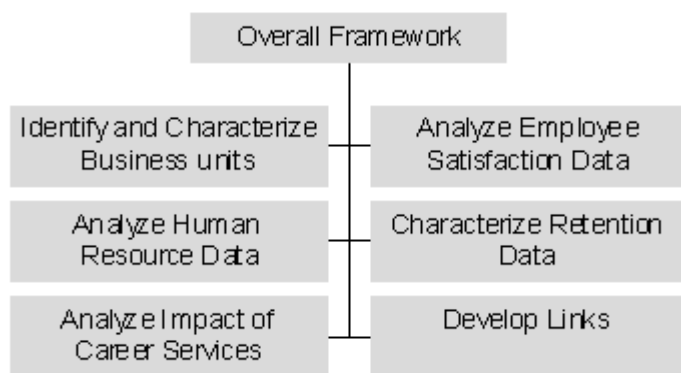
Alignment → Satisfaction → Retention → Performance

The purpose was to explore the cause/effect chain between employee alignment with best work, satisfaction, retention and business performance and measures that could describe these links. Over time the objectives for the study were developed as follows:

- Examine the rationale that enabling people to seek greater fulfillment in their work through career development creates value for the organization.
- Enhance understanding of the complex linkages between employees' alignment with their best work and business performance.
- Explore the impact of organizational career development support as one element of a high performance work system.
- Examine the impact of human resource commitments, including career services, on business performance.
- Begin scoping predictive methods to guide the future commitment of resources.
- Explore the population demographics within a high technology organization and the effectiveness of career services in addressing workforce diversity.
- Communicate results in a graphical format that clearly shows important relationships among different elements.

Sun was ideally positioned for this study since the organization routinely captures much of the needed data. The plan was to examine existing data sources which would be linked together for the first time. Elsdon and Iyer scoped out the various types of data needed for the analysis. They were as follows:

Components of the Analysis



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Ronald Elsdon

Figure 1

Traditional measures of business performance examine return on hard assets. This analysis, on the other hand, focused on employees as the primary asset of the organization. Consequently, financial measures were developed on a per employee basis with operating income per employee the proxy for overall business performance. The analysis began with three business units. It was soon evident that these results were valuable so three additional business units were added. All six business units accounted for 90% of the organization's workforce, which averaged 18,000 people worldwide and 12,000 people in the U.S. over the time studied. Of these six business units, five were profit centers and one was a cost center.

These six business units covered a wide range from services to advanced chip design, from software development and research to marketing and sales. In total, they are likely representative of high tech organizations today. The business characteristics among the six units were very different. To capture this, measures of research and development, sales and marketing expenses, revenue, assets and operating income were developed on a per employee basis. This required several iterations with the financial group to fine-tune the data and to ensure that the correct financial information was included.

It was necessary to define the reference population in each business unit. This was used to calculate financial information on a per person basis and to calculate attrition, transfer and career services activity rates. Since some of the information was available on a worldwide basis and some was available for the U.S. separately, reference populations were defined for both areas in each business unit. It was then possible to relate performance and activity measures to the right reference group. When averages were needed, the mid-year population number was used. Also important was an understanding of employee demographics for the general population and those people using Career Services. The population was characterized by ethnicity, gender, age, years of service and grade level. Another important aspect of the study was to look at movement of people. This meant accessing Human Resources databases covering transfers, promotions, and voluntary and involuntary terminations. Since retention is particularly important, this was looked at in detail.

These measures provided both a base level reference for the general population and an estimate of the impact of Career Services. Detailed tracking was performed for the period September 1996 through September 1997. Some of the data was available for three fiscal years (July 1 through June 30) 1995, 1996 and 1997 and where possible relationships were examined for this broader period. During the 9/96 to 9/97 time 1033 people used Career Services for a total of 2138 appointments. This is between 6% and 11% of the population in the business units studied. Cross correlation among the databases provided a measure of people movement that occurred. Sun conducts monthly employee satisfaction surveys which cover many areas including career development opportunity satisfaction. This information was averaged for the 1997 fiscal year for each of the business units to examine relationships that might exist.

Data Analysis

When the study was begun it was not clear what relationships, if any would be identified, and the strength of the relationships. Consequently, an analysis tool was needed that would allow manipulation of quite large data sets (several thousand records), easy visual display of results, and access to basic statistical analysis tools. In addition since basic mathematical modeling was planned, an analytical tool to handle non-linear systems was needed. The systems chosen were Microsoft Excel for the data analysis and visual display capability, and Mathsoft's Mathcad7 for modeling.

Elsdon and Iyer met every two to four weeks during the two month definition period and four month analysis period. In the early stages, the focus was on defining data needs and checking the data for validity. In the latter stages, the focus was on the results and their meaning. The results of the study were then reviewed with various levels of management in Sun over about a five month period, and non-proprietary parts were reviewed outside Sun during this time.

Some of the challenges that arose in the data analysis and reporting were that discrepancies were noted between the Career Services data and the termination data. This was ascribed to some duplication and reporting differences in the Career Services data. The data source considered most reliable for a given analysis was used. Later study, a year after this work was completed, validated the approach, and confirmed the conclusions. Moving the large data sets around was a challenge requiring use of a Zip drive. Incorporating the graphical results into reports required breaking the approximately 60 graphs into multiple separate files to allow tasks such as saving to occur in a reasonable time. Both Excel and Mathcad7 proved to be strong tools for data manipulation, modeling and display.

Connection to Other Studies

One question Elsdon and Iyer addressed early was the nature and extent of prior studies. From a literature search they found little quantitative work on the organizational impact of career development work but a broad range of work on the impact of human resource practices on business performance. The studies ranged from an academic to a practitioner focus, from an organizational to an individual, psychological perspective. They underlined the importance of this area due to the size of resources committed and the potential impact. Elsdon made contact with others in the field which provided input on the use of frameworks such as the five level Kirkpatrick/Phillips model, a useful approach to framing the analysis.

Summary of Results

The study addressed three main questions:

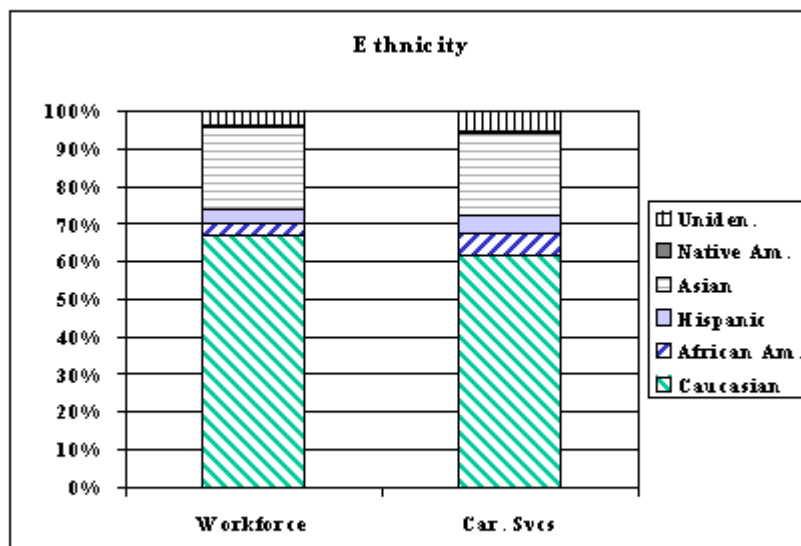
How effectively does Career Services reach into the employee population?

What outcomes do Career and Human Resource Services provide and what is their value to Sun?

How is it possible to predict what to spend in Human Resources?

One concern about reaching Sun's population was the ability of Career Services to address the needs of different ethnic groups. This is particularly important given the growing diversity of Sun's employee population. As shown in Figure 2, the Caucasian population as expected is the greatest user of Career Services at 62% of the total. However, there is higher usage of Career Services by other ethnic groups at 38% of the total, compared with their constituting only 33% of Sun's workforce. We can therefore conclude that Career Services is a valued resource used by ethnic minorities. This graphical display is typical of many charts that were used to show results.

Figure 2



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Ronald Elsdon

Another question about the use of Career Services was whether it would be used by employees at all levels. By comparing profiles by grade

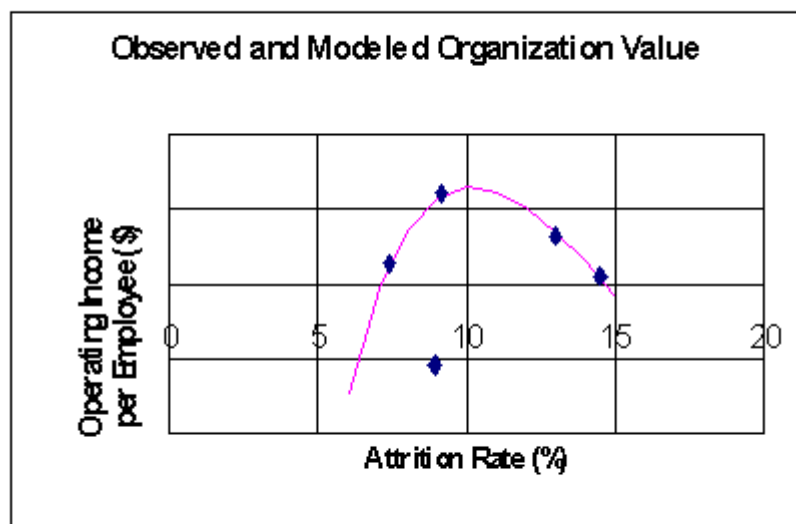
level of the population using Career Services with the general population, it was clear that employees at all levels from administrative to middle management actively used the service. Similarly when looking at usage by years of service and age the Career Services population closely tracked the overall population. This also showed how high the proportion of the population is with three or fewer years of service, and the importance of paying particular attention to those with five or fewer years of service as attrition is highest here. In terms of gender usage female clients accounted for 59% of all appointments, the reverse of the overall population which is 40% female. Based on this information it was clear that Career Services was used representatively and where the focus of retention efforts should lie.

This brings us to the second question about outcomes and organizational value. The employee overall satisfaction data provided little discrimination from one business unit to another. This shows how it is important to carefully tailor satisfaction surveys to address specific areas of interest. For example, employee career opportunity satisfaction did increase significantly in those business units spending more on Human Resources (including Career Services), although again the measures were not strongly differentiated.

Attrition provided a much more direct outcome measure. The overall attrition rate in the six business units fell noticeably as more people used Career Services, even though only about 10% of employees used the service during the period studied. More striking was the difference in the attrition rate for those people using Career Services and the overall population in the six business units. The attrition rate was lower by 1-3.5 % for the group using Career Services, a large reduction for an attrition rate that is below 10% overall. The uncertainty in the range represents possible uncertainties in the data. The measured reduction over 13 months was 3.5% and later data analysis a year later confirmed that the attrition rate was lower by 1% on an annualized basis.. The reduction in attrition due to the use of Career Services' counseling shows how helping people align with their best work, translates into a direct benefit to the organization. The rate of attrition also fell as more resources were invested in the overall Human Resource activity. There was sufficient data available to show a linear relationship.

This brings us to the third question, is it possible to predict the right amount to spend on Human Resources. With attrition so important to Sun, and a clear outcome measure, the analysis focused on this characteristic. At this point, the study focused on possible approaches to mathematically modeling the impact of Human Resources spending on business performance. Prompting this work was the thought that at very low attrition rates there would likely be some stagnation in the organization, while at high levels the costs are very high. There is likely to be an optimum somewhere between these extremes. Elsdon and Iyer developed a simple model that predicted an optimum and then looked to see if the data supported it. The results are shown in Figure 3:

Figure 3



08/14/1999

Ronald Eldon

While there is limited data for the five profit centers studied (the diamonds), business performance expressed as operating income per employee does peak at a mid-range attrition rate. The line is a good fit of the model to the data. The model was then combined with the earlier relationship between attrition and Human Resource spending to project an optimum spending level for Human Resources.

Financial Impact

What does this mean financially? There are two parts to this, the impact of Career Services and the impact of Human Resource spending. First considering Career Services. It is estimated that the cost to the organization of losing one person is at least 1 ½ times their annual salary. This includes the cost of recruiting a new person, training costs and lost productivity. The average salary at Sun during the study period was \$70,000 per year, which means the cost of attrition per person was about \$100,000. Today it is much higher. Taking the reduced attrition of 1%, and applying it to the population using Career Services of about 1000 people per year, results in an annual cost saving due to reduced attrition of about \$1 million. Furthermore, for those employees in transition, use of Career Services is a cost effective means of support. This is estimated to contribute about another \$100,000 per year relative to the use of outplacement services. Since the fully loaded cost of Career Services is estimated at \$600,000 per year, the return on investment is $(\$1,100,000/\$600,000) \times 100$, which is equal to 183%. Sun is clearly capturing value from its investment in Career Services. This value would be further increased when improved effectiveness is taken into account. A similar analysis of the benefit of investing in Human Resources shows this to be in the tens of millions of dollars each year based on reduced attrition.

Communicating Results

The results of the study were reviewed in graphical form with multiple levels of management at Sun. They were well received, confirming for Sun the value of the investment and providing the basis for continued support of Career Services. This analysis also helped identify employee groups, such as new college hires, who could particularly benefit from focused attention. With confirmation that Career Services was adding significant value, Sun's management now asked the question as to how the role might build in the future to further enhance Sun's competitive position. The results were also reviewed outside Sun, in the career development field. Again, there was great interest in quantitative support for the impact of Career Services, although mathematical modeling is not a primary area of interest for most counselors.

Questions for Discussion

1. What are the critical issues in this study?
2. How transferable are these results to other industry sectors?
3. What are the implications for a follow-up controlled study over time?
4. What are the pros and cons of employee satisfaction surveys as a measure?
5. What other elements of value could be captured?
6. What other cost elements could be captured?
7. How could the uncertainty in the measured value be reduced?
8. How would you go about validating the model?
9. What skills are needed to implement such a study?
10. How can quantitative analyses be best communicated in the Human Resources community?

The Authors

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Ron Elsdon specializes in the career field, speaking at national conferences, publishing and lecturing in the field. He is a principal in New Beginnings Career and College Guidance, an Account Executive with Drake, Beam Morin and led the Career Action Center's Services practice providing career development support for individuals and organizations. He has more than 20 years of experience working with U.S. and International corporations in a broad range of industries and in various senior management capacities. He has an MA in Career Development from John F. Kennedy University and a Ph.D. in Chemical Engineering from Cambridge University, England.

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