NET IMPACT ON PRODUCTIVITY THROUGH
THE USE OF ONLINE RECRUITING VERSUS
TRADITIONAL RECRUITING METHODS

By

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ABSTRACT

With the explosion of the internet in the nineties, companies were transforming the way they conducted business from traditional business methodologies to a new paradigm involving an extensive force of change through increased information and communication. Within the 'internet-driven world', new technology was used to connect 'everyone to everything'.

As their need and desire to deploy this new technology grew so did the demand for companies to expand their operations. Many companies were forced to adopt aggressive hiring techniques to satisfy their demand for new skills and services. Within Silicon Valley, as well as throughout the world, companies were growing at such an explosive rate that traditional recruiting methods (such as the newspaper ads, trade publications, recruiting services, profiling services, referrals and/or executive search firms) couldn't scale to the demand.

While these traditional methods had been effective for years, they began to lose ground to a new form of recruiting, eRecruiting/Online recruiting which offered real-time access to a vast array of prospective employees and company positions. More importantly, eRecruiting, offered a method for keeping pace with 'Internet Time': allegedly a seven to one speed propulsion (where one internet year was equivalent to seven non-internet years) experienced by those caught up in this new era.

This paper will evaluate the impact on productivity and return of investment of online recruiting versus traditional recruiting methods. Encompassing this evaluation will be a perspective of what is and is not working for eRecruiting followed by a series of recommendations to leverage the maximum return of this emerging e-channel.
About The Author

Tim DiMacchia is a Software Release Operations manager at Cisco Systems Incorporated facility in San Jose, California; where his responsibilities included managing software delivery, distribution, and support tooling for the majority medium to high end routers and switches delivered by Cisco. Tim has over 18 years of software development and engineering experience where he specializes in software engineering processes, information technology, and software quality.

Tim's academic history includes his most recent attendance to MIT's Sloan School of Management, as a 2003 Sloan Fellows participant. Additional academic achievements include a Masters of Computer Science from Florida Atlantic University, a Certificate of Software Engineering from Carnegie Mellon and a Bachelor of Science in Computer Science from Florida Atlantic University.

In his spare time, Tim enjoys being part of the Harley Owners Group where he can experience some of the wonderful sites that California has to offer, snowboarding in Tahoe, as well as, mountain-biking throughout the northern California and Nevada regions.

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Why choose an aspect of human capital management?

All so often throughout my work, I've been asked on a regular basis; why did I choose recruiting? Seeing how my background is more technical then human resource related, many felt my work should have followed another course.

As I was going for an early morning motorcycle ride through highway 9 from San Jose to Santa Cruz California, I reflected on all the possible topics for this work. Without a doubt there was an 'endless sea of choices', however, I wanted to identify and pursue something that could span many industries and could potentially have a significant impact for companies - even those outside the technology arena. After several miles of heavy fog and winding curves through the mountains and contemplating these prospective topics it occurred to me - like sunlight breaking through the fog, that the greatest asset and resource for any corporation is its people. Thus, it was with this revelation in mind that I concluded the best return on my effort would be if I could help all companies improve their human capital activities. And so the adventure began ...

Without delaying this journey any further, we conclude this section and hope that the reader will enjoy this work as much as we had enjoyed creating it.
1 Acknowledgments

When I started this work, I had this misconception that experts in the field would be more than willing to share their experiences and contributions; thus, obtaining industry guidance would be the easiest of my tasks. Unfortunately, I found this not to be the case. Many either didn’t reply to emails or offered no assistance in this work.

However, despite these hurdles, I was able to find a special set of individuals that not only believe in the benefit of such work, but are also passionate about their field to take time out of their already over committed schedule to provide assistance. While it would be very difficult, if not impossible, to thank everyone who have provided insights and assistance during these very long months of research and writing, several individuals deserve a “special thank you”, for their assistance. These individuals and their associated companies are (listed alphabetically by company):

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- Don D’Andrea – D’Andrea & Associates
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- Carolyn Garman – Interim Healthcare Incorporated
- Alexis Monteiro – Interim Healthcare Incorporated
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- Kelly Cartwright – The Newman Consulting Group
- Elaine Orlie – Talent Market Group
- Peter Weddle – Weddle’s

Before leaving this section, I would also like to acknowledge those who have provided sponsorship not only throughout this work but also throughout the year.

Roberto Angulo for volunteering his time and staff to develop and distribute our recruiting ROI survey.

Erik Brynjolfsson, with MIT’s Center for eBusiness, for not only his sponsorship, and opportunity to work together – for which I have greatly enjoyed, but also his work on measuring the return on investment of technology and worker productivity.

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The MIT Faculty and Program Office who have continually challenged us throughout the year and provided us with new insights and knowledge that we will carry forever. Their dedication to learning is a source of enlightenment for all.

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Frank Field, who fought the bureaucratic system, for me to become Cisco’s first representative in the MIT’s Sloan Fellows program. None of this would have begun without Frank’s, and select senior management’s (while anonymous here) assistance, persistence and belief in the program and myself.

MIT Sloan Fellows ... words can not describe the tremendous bonding and support that has developed with my classmates over this past year. Our friendships have had no boundaries whether it is nationality, country, or language. A recipe for success both now and in the future, for that I thank every one of my classmates. May our friendships continue to inspire, support and last throughout the years.

And a personal note, to my mother and father for their never ending source of encouragement, guidance, love and influence in my life.

Thank you everyone!

Tim DiMacchia – Sloan Fellows 2003
2 Company Profiles

This section is a dedication to those companies, and their individuals, whom demonstrated an over zealous and unselfish willingness in contributing to this research. I can not thank them enough for their effort and support.

AfterCollege™ is one of the top online recruiting sites on the web today. We target current college students, recent grads, and recent alumni. Our mission is to match employers with the most qualified college graduates and help students obtain job interviews, full time jobs, and internships.

AfterCollege was rated the #1 College Career Center by Lycos and received national recognition in USA Today as being one of the hottest sites.

Aetna is one of the nation’s leading providers of health, dental, group life, disability and long-term care benefits.

Aetna is one of the nation's leading providers of health care, dental, pharmacy, group life, disability and long-term care products, serving approximately 13.7 million medical members, 11.8 million dental members and 11.7 million group insurance customers, as of December 31, 2002. The company has expansive nationwide networks of more than 552,000 health care services providers, including over 332,000 primary care and specialist physicians and 3,373 hospitals. (NYSE: AET)

D'Andrea & Associates

D&A is a retained search firm which provides all the services required to effectively and efficiently identify, contact, qualify, develop and profile the right candidates for its clients’ positions. They recruit both technical and administrative professionals who are either individual contributors, managers or executives.

Cisco Systems, Inc. is the worldwide leader in networking for the Internet. Cisco's Internet Protocol-based (IP) networking solutions are the foundation of the Internet and most corporate, education, and government networks around the world. Cisco provides the broadest line of solutions for transporting data, voice and video within buildings, across campuses, or around the world. (NASDAQ: CSCO)

Dr John Sullivan is a well-known HR "guru", international speaker, author, and advisor to Fortune 500 and Silicon Valley firms. His interactive style and his ability to "push the envelope" and make the audience "re-think" HR is second to none. He specializes in making HR "THE" competitive advantage for firms. Fast Company magazine even called him "the Michael Jordan of hiring"! Dr. Sullivan has served as an advisor to numerous Hi-Tech and Fortune 500 companies including Microsoft, HP, NIKE, National Semiconductor, Cisco, Sun Microsystems, Charles Schwab, McDonald's Corp., Sprint and Pac Telesis. He is on the steering committee of the McKinsey Consultants "War for IT Talent" National Research Study and is an advisor to the American Productivity and Quality Center’s study of recruitment and retention. He has also contributed to the Corporate Leadership Council’s Retention study.

The MIT Sloan School of Management created the Center for eBusiness@MIT to provide leadership for faculty, students, and industry interested in Internet-enabled business. Developments in this field promise to transform the economy, while creating new opportunities and challenges. Our mission is to be the leading academic source of innovation in management theory and practice for eBusiness. The Center eBusiness@MIT has established: a large-scale research program, funded by industry, an MBA Digital Business Strategy Track, an eBusiness Executive Education curriculum. The Center for eBusiness@MIT builds on over 30 years of MIT research on the Internet and its predecessors.
Interim HealthCare is the nation's largest combined provider of home care and supplemental staffing. It is also the nation's oldest and most successful health care franchise organization with the average owner tenure of 18 years. Interim HealthCare employs over 51,000 home health workers each year including RNs, LPNs, therapists, home health aides and more. Interim HealthCare is an international company with nearly 300 offices worldwide (38 states and Brazil) that employs 51,000 health care workers annually and provides patient care for over 43,000 patients in a given day.

Founded in 1975, Microsoft (NASDAQ: MSFT) is the worldwide leader in software, services and Internet technologies for personal and business computing. The company offers a wide range of products and services designed to empower people through great software -- any time, any place and on any device.

Monster is the leading global online network for careers, connecting companies with the most qualified career-minded individuals. The Monster global network consists of 22 local content and language sites throughout the world. Monster boasts over 26 million job seeker members, a resume database containing more than 18.5 million unique resumes, over 100,000 member companies and over one million unique job opportunities within the Monster Network. Monster is the flagship product of the Interactive Division of TMP Worldwide Inc. (NASDAQ: TMPW).

The Newman Group (TNG) offers a complete range of services designed specifically for the implementation and utilization of recruiting technology. Whether you are looking for strategic analysis, vendor selection and implementation, reporting & metrics, or data migration and integration services, we truly understand the issues of recruiting, sourcing, workforce planning, and the technology that supports it.

Talent Market Group Incorporated is a strategic and technical services consulting company dedicated to building and evolving a talent management system through strategic planning, processing reengineer, systems implementation and system optimization services for Human Resource and Human Capital Management groups.

Oracle Corporation (NASDAQ: ORCL) is an enterprise software company that develops, manufactures, markets and distributes computer software that helps its customers manage and grow their businesses and manage their operations. The Company's software products can be categorized into two broad areas: database technology software and applications software. Its database and Internet platform for developing and deploying applications on the Internet and on corporate intranets. Its applications software can be accessed with standard Web browsers and can be used to automate business processes and to provide business intelligence for marketing, sales, order management, procurement, supply chain, manufacturing, service, human resources and projects. In addition to computer software products, the Company offers a range of consulting, education, support and outsourcing services.
Razorfish is a digital solutions provider that helps organizations generate competitive value by leveraging the power of technology. Razorfish offers depth of expertise in multiple industries, including financial services, media and entertainment, information technology and communications, retail and consumer products, healthcare, and manufacturing. Razorfish is a division of SBI and Company Incorporated.

SanDisk Corporation is the world's largest supplier of flash data storage systems. SanDisk utilizes its patented, high-density flash memory technologies to design, manufacture and market industry-standard digital imaging, data and audio storage products. SanDisk's innovative product line is sold through more than 38,000 retail outlets worldwide, and is incorporated into the products of industry-leading OEMs. (NASDAQ: SNDK)

Peter Weddle is a recruiter, HR consultant and business CEO turned author and commentator. Described by The Washington Post as "... a man filled with ingenious ideas," he has earned an international reputation, pioneering such concepts as Human Capital, Career Fitness and the Internet as a resource for recruiting and HR management. He has authored seven books, published dozens of articles and magazines. He writes a weekly column about online CareerJournal.com from The Wall Street Journal and a monthly newsletter that is distributed worldwide. In addition, he oversees Weddle's Publications, the leading print publisher of newsletters, guides and directories about employment resources on the Internet. The American Staffing Association has called Peter Weddle the "Zagat" of the online employment industry. Weddle is the former Chairman & Chief Executive Officer of Job Bank USA, Inc., one of the largest electronic employment service companies in the United States, which he founded in 1991 and sold in 1996.
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3 Organization of the Document

The purpose of this document is to evaluate the overall net impact on productivity that the online recruiting channels have delivered as compared to traditional recruiting methods. This document is organized into seventeen chapters, with the first three chapters containing introductory material. Chapter four provides a historical perspective of the recruiting industry, followed by chapter five which explains the growth experienced by the recruiting industry during the late 1990's and early years of 2000 through 2003.

Chapter six provides an overview of the basic recruiting channels, tools, techniques and then concluding the chapter with best and worst company web sites for the job seeker. Chapter seven breaks down the recruiting process into both front-end and back-end processes. Additionally, a general overview of how the types of organizations have transformed into a new era of management and behavior. The chapter concludes with one manager's perspective on how the recruiting process worked within Silicon Valley California.

Chapter eight provides insights into a new paradigm for success which is emerging called the Networked Virtual Organization (NVO). Within this chapter the fundamental principles, framework, industry adoption and economic impact of a NVO are covered. The chapter concludes with a NVO implementation plan and summary.

Chapters nine through ten discuss the overall impact the internet has had on the industry, as well as, how the return on investments are being conducted within Information Technology and staffing sectors.

Chapter eleven provides the reader with an analysis of a survey which was distributed to assist with this work. Following this chapter, is a more detailed look at the recruiting industry. The state of the business, what is working well, what isn't working so well, online job hunting misconceptions, and what mistakes to avoid is all part of what is provided in chapter 12.

Recommendations for improving the return on investment for the recruiting industry are found within chapter 13. A retrospective look at the recruiting industry – concludes this section.

Chapters 14 and 15 summarize selected readings for the reader and precede the index found in appendix which is found in chapter 16. Finally, an index is provided for the reader in chapter 17.
4 A Historical Perspective

With the explosion of the internet in the nineties, companies were transforming the way they conducted business from traditional business methodologies to a new paradigm involving an extensive force of change involving increased information and communication. Within the 'internet-driven world', new technology was used to connect 'everyone to everything'.

As the need and desire to deploy this new technology grew so did the demand for companies to expand their operations. New skills and services were needed to define and implement this emerging technology. Within Silicon Valley alone, companies were growing at such an explosive rate that traditional recruiting methods couldn’t scale to the demand.

This explosion of opportunities opened the door for intense competition, a strong economy and low unemployment which were putting tremendous pressure on staffing organizations. Managers were asked to do more with less and so they need recruiters to quickly fill vacant positions. Many have suggested that the rules of the past were thrown aside for something more than a competition – a war – a war for talent.

Companies were scrambling to hire and retain the people they needed. Companies were offering large signing bonuses, employers were asking for raises three months after they joined, and headhunters were cornering hot recruits before they had even settled behind their desks. Many companies had hundreds of vacancies they couldn’t fill, and some of the venerable bastions of talent (such as investment banks and consulting firms) were losing talent to dot com upstarts. It was easy to see the war for talent raging in the recruiting and retention frenzy of the late 1990’s.

Historically, traditional recruiting lifecycles comprised of newspapers, trade publications, recruiting services, profiling services, referrals and/or executive search firms.

For decades, recruiters have relied almost exclusively on major newspapers in their metropolitan areas. Unless the vacancy was at the senior level (then, only a headhunter would do) or in a very rare occupational field, most recruiters were content to use a single venue -- the daily or Sunday newspaper -- for all of their recruitment advertising.

While these methods had been effective for years, they began to lose ground to new form of recruiting, eRecruiting/Online Recruiting, which offered real-time access to a vast array of information and databases. More importantly, eRecruiting, offered a method for keeping pace with 'Internet Time'; allegedly a seven to one speed propulsion (where one internet year was equivalent to seven non-internet years) experienced by those caught up in this new era. The major online job boards offer hundreds of thousands of opportunities, providing job seekers an alternative to searching corporate Web sites and local newspaper help-wanted ads. To job hunters, they have held out the promise of getting a resume in front of a vast pool of potential employers with relative ease.

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Prior to 1999, eRecruiting was still gaining traction within the Fortune 500 community whereby only 29% of these companies utilized some form of corporate web site recruiting.

By 1999, over 60% of the Fortune 500 companies had deployed a company web site to address their recruiting needs. Of even more importance, 1999, marked the final year in which only 9% of the Fortune 500 companies still hadn’t deployed a corporate web site. Shortly after that, every Fortune 500 company had a company web site evangelizing their company, products and success stories.

<table>
<thead>
<tr>
<th>Year</th>
<th>Corporate Website Recruiting</th>
<th>No corporate website Recruiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>29%</td>
<td>57%</td>
</tr>
<tr>
<td>1999</td>
<td>31%</td>
<td>60%</td>
</tr>
<tr>
<td>2000</td>
<td>79%</td>
<td>21%</td>
</tr>
<tr>
<td>2001</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>2002</td>
<td>91%</td>
<td>9%</td>
</tr>
</tbody>
</table>

**Source:** iLogos Research, April 2002

Notice the increase in corporate web site recruiting from 1998 with 29% to 91% in 2002.

**Figure 4-1: Corporate Website Recruiting by Fortune 500 (1998-2002)**

It was by this time; Online Recruiting had begun to transform the recruitment industry, and was moving towards eventual dominance as the primary channel for talent sourcing.\(^5\) Classified ads placed in the newspaper for recruiting purposes sustained a significant drop by the year 2000. By now, it was clear a new disruptive market had emerged and was threatening the older more traditional methods. The Internet was being used to accomplish five employment-related functions: research, resume distribution, job searching, networking and personal development.\(^6\)

---


Figure 4-2: Allocation of Recruiting Budgets by Businesses (1998 vs. 2000)

As the Internet and e-commerce boomed throughout the decade, the online job search industry grew with it. Websites were no longer simply a way to help job seekers and employers connect, but became a lucrative business opportunity. A rapid infusion of venture capital and initial public offerings transformed the job search industry. Heavy advertising, including TV spots during the 1999 Super Bowl, drove millions of people to online job search sites. Online job searching became embedded in employment and recruiting practices.

A turning point in the online job search industry came in 1999 when the Online Career Center – an influential early online job site founded in 1993 – merged with TMP’s Monster Board, founded in 1994. The combined sites became Monster.com, which immediately took over the leadership position in the online job search space.7

According to Towers Pernin, by the year 2001, Online Recruiting (eRecruiting) outpaced areas of internal web based technology investments. Having a company web site in place was only the beginning; the next step was attracting talented high-skilled workers to their company. What better media to do this than through the company web site? Company web site visits were accelerating at unprecedented rates.

---

Like the internet 'bubble', online recruiting was being driven across all industry sectors. According to an April 2, 2002 report by iLogos Research, the Healthcare industry was by far the fastest adopter (sector wide) for deploying corporate recruiting web sites. Manufacturing and Transportation were close behind. Unfortunately, the utilities and financial sectors were one of the slowest adopters; despite their adoption rates which were above the 70% percentile.

Unfortunately, the accuracy of this report was some what limited due to the lower sample size for some of the top performers such as healthcare and transformation. Despite the limited sample size, this emergence created a strong presence for industry-wide adoption. In less than three years, over 84% of all the Fortune 500 companies were utilizing some form of corporate website recruiting.

Despite the accuracy difficulties of this report, one may ask why it was that healthcare surpassed; what for some may have been the obvious leader – the technology sector. Even though much evidence doesn’t exist explaining the reasons why, several observations come to mind. Since the early to mid eighties when the HMO and PPO sector began its downward consolidation, the healthcare industry was met with strict regulations for monitoring and controlling their operational costs. Operational efficiencies were deployed throughout almost every order of business. Additionally, government and state regulations forced a more stringent hiring practice and certification/verification process. With the workforce consolidation which occurred in the eighties, the medical industry began to either deploy automated methods for doing what were manually intensive tasks or outsource those activities that they could. Medical liability and mal practice issues also contributed to this increased verification.

For many reasons this was a good thing for the healthcare industry. Initially these improvements increased the work demands for those deploying and enforcing these mechanisms, in the long run, it institutionalized very strict pre-screening processes; which we will see later, was and is still maturing for many internet recruiting sites.
Perhaps these are the reasons, or others may exist, that provided the healthcare sector with the capabilities to lead the deployment of company web sites used for recruiting. One thing was clear; internet recruiting was taking off like a 'rocket into space'.

| Corporate Website Recruiting by Global 500 Companies, by Industry, 2001 & 2002 |
|----------------------------------|-------|-------|
| Utilities*                       | 79%   | 84%   |
| Financial                        | 82%   | 87%   |
| Wholesale*                       | 82%   | 91%   |
| Natural Resources                | 83%   | 88%   |
| Consumer                         | 87%   | 92%   |
| High Tech                        | 89%   | 95%   |
| Transportation*                  | 96%   | 92%   |
| Manufacturing                    | 97%   | 98%   |
| Healthcare*                      | 100%  | 100%  |

Note: *low sample sizes
Source: iLogos Research, April 2002

In its simplest form, online recruiting consisted of posting available job positions. While this was a step in the right direction for many industries, candidates were still required to apply for potential positions through the traditional methods of completing a 'hard copy' application. Paper media, for most, now became the bottleneck. Significant manual effort was still required for duplicating and distributing the enormous increase in candidate profiles. Additionally, the routing channels become cumbersome and ineffective. Potential candidate profiles were often lost, misplaced or delayed; missing their window of opportunity for employers.
It didn’t take long for companies to realize that extending the capabilities of online recruiting to include a method for submitting applications was needed. By 2001, approximately 74% of the Fortune 500 companies had deployed a method for applying online to the posted jobs positions.

Extracting information from widely varying resume formats and inserting relevant information within an applicant tracking system can be a tedious and time-consuming task if done manually. Manual solutions include re-keying the applicant’s resume into the company’s system or requiring applicants to re-key the details from their resume into a form on the web. Without automated and reliable ways to analyze and intelligently separate the information contained within resumes, resume-processing costs can be high. Moreover, manual means may not be the best way to sift through a large volume of resumes to find the candidate with the qualifications best matching an employer’s requirements.8

![Figure 4-5: Online Job Application to Posted Job Positions (Fortune 500)](image)

For web based technology, job requisition investments were the leading Human Resource function from 2001 through 2003.

![Figure 4-6: Key Manager HR Self-Service Functions](image)

---

Much like the success that occurred in every industry within the Fortune 500, geographic success also reached unprecedented levels globally. By 2002, over 90% of the European and Asia-Pacific regions within the Global 500 companies had deployed a corporate website dedicated to recruiting. Asia-Pacific demonstrated the fastest growth, over a three year period starting in 2000, where only 68% of the Global 500 companies had a corporate recruiting web site.

<table>
<thead>
<tr>
<th>Corporate Website Recruiting by Global 500 Companies, by Region, 2000-2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Asia-Pacific</td>
</tr>
<tr>
<td>North America</td>
</tr>
</tbody>
</table>

Source: iLogos Research, April 2002
www.emarketer.com

Figure 4-7: Corporate Website Recruiting By Region (2000-2002)

Initially, search engines were the primary compass for navigating through this highly interconnected web of information. No matter where you lived in the world more and more local companies were developing their own ‘super intelligent’ web search engine. As the power of these search engines increased, so did internet user traffic. Contrary to this technology trend, company web site traffic was growing through “direct links”; while search engine traffic continued to decrease year after year.

<table>
<thead>
<tr>
<th>Methods Used by Internet Users Worldwide to Arrive at Web Sites, 2001-2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct navigation</td>
</tr>
<tr>
<td>Web links/search engines</td>
</tr>
</tbody>
</table>

Source: WebSideStory, February 2003
www.emarketer.com

Figure 4-8: How Internet Users Worldwide Arrived at Web Sites (2001-2003)
Perhaps this was the result of company web addresses appearing everywhere you looked. Trade journal ads listed the company’s web site within very close proximity of their logo or tag line. Web site addresses were even dropping the traditional ‘www’ prefix to increase their branding. If all that was known was the company’s name, simply typing the company-name followed by dot-com guaranteed a high percent of success in finding the company’s web site. Finally, a marketers/salesperson dream come true; complete name recognition with a high degree of “stickiness” to the company’s “information vault”. How much easier could the industry have made it for recruiters?

With the success of company branding, another perspective began to surface? Is (was) recruiting a Human Resource function or a sales/marketing function? A rather interesting paradigm to consider that may in some aspects resemble another ‘chicken and egg’ problem. Some might argue that the recruiting function has always been the responsibility and function of the human resource department. Maybe it was our last association for when we are hired, or maybe it was the phone call from HR when we received a job offer, that leads us to this conclusion.

However, there are some that believe that individuals are drawn to a company (especially during competitive times) based upon a company’s’ brand name, visibility and market perception. An interesting study, outside the scope of this work, might be developing a mathematical data model that analyzes the trends of resume flow for a company when they are on the up-swing, as well as, the down-swing of their success pendulum. Our experience tells us, that candidate flow and position availability dramatically increases (or decreases) proportionally to the company’s brand recognition. Whether recruiting is a human resource or sales/marketing function, the internet boom allowed for greater access of information and in turn significantly increased company web site traffic.
5 Riding the Internet Recruiting Wave ...

Our previous section illustrated the fantastic growth which was experienced by the initial introduction of eRecruiting. For the initial technology leaders, like Monster.com, user adoption rates were skyrocketing to unbelievable levels.

According to the Jupiter Media Metrix – March 2001 report, Monster.com was experiencing an excess of 25,000 resumes per day growth from March 2000 to March 2001. Reaching an unbelievable fourteen million registered users by the end of this same period.

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>My Monster registered users</td>
</tr>
<tr>
<td>Total resumes</td>
</tr>
<tr>
<td>Average Resume Growth per Day</td>
</tr>
<tr>
<td>Source: Jupiter Media Metrix, March 2001</td>
</tr>
</tbody>
</table>

Figure 5-1: User Statistics for Monster.com (2000-2001)

Monster’s success clearly acted as a catalyst in creating a technology wedge which opened the door for other new entrants to follow. New entrants were jumping on the ‘band wagon’ as fast as they could for fear of being left behind on the technology adoption curve.

The yearly increases in the rate of adoption of corporate website recruiting by the Global 500 since 1998 closely matches the predictions of the "diffusion of innovation" theory for the adoption of technological innovation. This theory divides adoption into segments: starting with innovators, moving through early adopters, early majority, late majority, and finally laggards. The diffusion of innovations theory holds that the rate of adoption of a new technology will accelerate once the technology has moved out of the pioneering innovators and early adopters phases and into the mainstream. After a majority has embraced the new technology, the increase in the rate of adoption diminishes, as the "late-adopters," or laggards, with more conservative attitudes to change, take longer to embrace the innovation.²

More and more online recruiting companies, bulletin boards, jobs services, chat rooms, and integrated applications began to surface. It was not uncommon for these companies to experience in excess of 40% growth, with 62% being achieved by at least one company, from 2000 to 2001.

From the research conducted within the 2001 Electronic Recruiting Index, it appears that there will be roughly 40,000 “job boards” in operation as of the end of the year (2001). Many of these operations are tiny local companies who provide a slightly improves service over local newspaper advertising. Rather than a desire to unearth Internet wealth, these companies have a leisurely growth agenda coupled with a desire to serve a very local market.¹⁰

However, a more astonishing benchmark was the actual number of web pages being viewed within these companies. Having the largest number of web pages viewed from 2000 to 2001, Monster.com, experienced an increase of over 600 million web pages. Second to Monster, was Hotjobs.com, who experienced an additional increase of 178 million web pages viewed.

---


Online employment Web sites continued to attract an increasing population of internet users and potential job seekers, and for many, became the preferred method to search for jobs. The Internet had made it enormously easy to look for - and find - vast amounts of information, in addition to making it much less expensive to store and transmit it.11

<table>
<thead>
<tr>
<th>Top 10 US Career-Related Sites, January 2001 (page views in millions and as a % increase from December 2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site</strong></td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>Monster.com</td>
</tr>
<tr>
<td>HotJobs.com</td>
</tr>
<tr>
<td>Headhunter.com</td>
</tr>
<tr>
<td>Craigslist</td>
</tr>
<tr>
<td>dice.com</td>
</tr>
<tr>
<td>JobsOnline.com</td>
</tr>
<tr>
<td>FlipDog.com</td>
</tr>
<tr>
<td>CareerBuilder</td>
</tr>
<tr>
<td>Vault.com</td>
</tr>
<tr>
<td>Net-Temps.com</td>
</tr>
</tbody>
</table>

*Source: Alexa Research, 2001*  
*www.alexaresearch.com*

Figure 5-2: Top 10 US Career-Related Sites - % increase (2000 vs. 2001)

And so it began - the battle for the top first and second position within the online recruiting industry. Different measurement standards were being used to justify a company’s’ claim to fame for this newly emerging niche market.

---

### US Adult Internet Users Visiting the Top 10 Career Websites, December 2001

<table>
<thead>
<tr>
<th>Website</th>
<th>Visited no other competing top 10 career site</th>
<th>Visited one competing top 10 career site</th>
<th>Visited two or more competing top 10 career sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotjobs.com</td>
<td>67%</td>
<td>17%</td>
<td>16%</td>
</tr>
<tr>
<td>Monster.com</td>
<td>58%</td>
<td>26%</td>
<td>16%</td>
</tr>
<tr>
<td>Homeemployed.com</td>
<td>48%</td>
<td>29%</td>
<td>23%</td>
</tr>
<tr>
<td>Careerbuilder.com</td>
<td>44%</td>
<td>18%</td>
<td>39%</td>
</tr>
<tr>
<td>Usjobboard.com</td>
<td>43%</td>
<td>14%</td>
<td>42%</td>
</tr>
<tr>
<td>Jobsonline.com</td>
<td>42%</td>
<td>30%</td>
<td>28%</td>
</tr>
<tr>
<td>Headhunter.net</td>
<td>25%</td>
<td>20%</td>
<td>54%</td>
</tr>
<tr>
<td>Net-temps.com</td>
<td>19%</td>
<td>28%</td>
<td>54%</td>
</tr>
<tr>
<td>Salary.com</td>
<td>18%</td>
<td>47%</td>
<td>33%</td>
</tr>
<tr>
<td>Flipdog.com</td>
<td>8%</td>
<td>30%</td>
<td>61%</td>
</tr>
</tbody>
</table>

*Note: Home and work users aged 18+.*

Source: Jupiter Media Metrix, Inc., May 2002

Fig. 5.3: Top 10 Career Websites (2001) for Adult Internet Users

Industry standards for reporting internet traffic were still emerging with no clear agreed upon standards. For many this became as much of a technology war, as it did, a religious war, where the battle field centered around measuring some form of user traffic (total users, unique users, length of time spent, reoccurring users, etc.).

TMP (the parent company of Monster.com) boasts that Monster.com, its flagship property, gives clients access to over 8.6 million unique resumes (2003), a database growing by 25,000 resumes daily. The website reported more than 26 million unique visitors in July (2003). Monster, based in Maynard, Mass., has a four-year, $100 million deal with AOL (now AOL Time Warner) to be the exclusive provider of job search services to 30 million AOL, CompuServe and other AOL-network associated users.

Meanwhile, TMP/Monster has been rapidly swallowing up competitors. It purchased JobTrak, Simpatix, and Business Technologies – among others – in the year 2000. This year (2003), Monster purchased Management Solutions, a respected placement firm. In May, TMP purchased FlipDog.com, the fifth most trafficked Internet site in online recruiting. As part of the deal, FlipDog owner WhizBang! Labs Inc. is to provide TMP with "additional information extraction services," according to the companies.

While Monster focused on the total number of visitors, an early internet measurement technique, Hotjobs.com focused on 'unique visitors' and 'loyalty'.

By the end of the year 2001, Hotjobs.com laid its 'claim to fame' has having the highest audience penetration.

---

Top 10 Career Sites In the US Ranked by Audience Reach, Q4 2001 (home and work users aged 18+)

<table>
<thead>
<tr>
<th>Website</th>
<th>Audience Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotjobs.com (1)</td>
<td>8.6%</td>
</tr>
<tr>
<td>Monster.com</td>
<td>4.7%</td>
</tr>
<tr>
<td>Jobsonline.com</td>
<td>3.1%</td>
</tr>
<tr>
<td>Careerbuilder.com</td>
<td>2.5%</td>
</tr>
<tr>
<td>Headhunter.net (2)</td>
<td>1.5%</td>
</tr>
<tr>
<td>Net-temps.com</td>
<td>1.0%</td>
</tr>
<tr>
<td>USJobboard.com (3)</td>
<td>0.9%</td>
</tr>
<tr>
<td>Homeemployed.com</td>
<td>0.9%</td>
</tr>
<tr>
<td>Salary.com</td>
<td>0.8%</td>
</tr>
<tr>
<td>Flipdog.com</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

Note: Data does not include the career channels within online networks such as AOL, Yahoo! and MSN; (1) now merged with Yahoo!; (2) now merged with Careerbuilder.com; (3) now merged with job.com
Source: Jupiter Media Metrix, Inc., May 2002

Figure 5-4: Top 10 Career Sites In the US (Ranked by Audience)

Despite the success of Hotjobs.com and Monster.com, corporate career websites were still outpacing these new entrants by as much as 30% at the end of June 2002 for the Fortune 500 companies.

Websites Used by Fortune 500 Companies to Post Job Listings, 2002 (as a % of respondents)

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate career websites</td>
<td>81%</td>
</tr>
<tr>
<td>Monster</td>
<td>51%</td>
</tr>
<tr>
<td>HotJobs</td>
<td>43%</td>
</tr>
<tr>
<td>CareerBuilder</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: iLogos Research, June 2002

Figure 5-5: Websites Used to Post Job Listings in 2002 (Fortune 500)

According to iLogos Research, the Fortune 500 company web sites were reported to have achieved an average of 184 job listings; while Monster and Hotjobs were reaching approximately 50% to 80% less listings per company.
Similarly, actual job postings were occurring within the ranges of 74,800 to 7,700 whereby the Corporate Career Web Sites were again achieving the highest penetration rates.

Much of the Corporate Web Site success was attributed to their college recruiting attractiveness; unlike Monster and Hotjobs which, at the time, focused primarily on a more experienced workforce.

A recent study by Recruitsoft/Logos Research, *Best Practices for Fortune 500 Career Web Site Recruiting*, found that 42 percent of the Fortune 500 has separate college recruiting areas in their Careers sections. Among industry sectors, 78 percent of Fortune 500 High Tech companies cater to college recruits with a separate section in contrast with only 29 percent of Fortune 500 Health Care companies. As cultivating this nascent candidate pool continues to gain popularity, more and more companies in all sectors will embrace this best practice and gain from tailored communication with this audience.¹³

Of even more importance was the ability of corporate web sites to leverage their branding and name recognition. This success was substantiated by iLogos Research 2002 publication “Low Cost/High Exposure” where they provided the following supportive evidence.

Why is the corporate Careers Web site showing such dominance over the commercial job boards? Large corporations benefit from excellent consumer branding and receive substantial traffic to the corporate Web site and its adjunct Careers Web site. For those well-branded corporations, the Careers Web site is a low cost, high exposure solution. It provides the opportunity for the corporation to take advantage of its full stream of corporate Web site visitors including customers, investors, and even competitors. The corporate Careers site provides a company with its own branded venue through which it can communicate and begin to form valuable relationships with potential future employees.14

As we mentioned in the previous section, companies recognized the improved cycle time and significantly lower costs, which could be achieved through their own web sites.

"Companies are using the Internet for recruiting because of cost and time," says Lynn Nemser, principal of Performance Partners Inc., a human-resources and management consulting firm in Pittsburgh. "The cost of recruiting on the Net is much lower than additional methods. Also, jobs can be posted instantly and candidates can respond faster." 15

It didn’t take long for the industry to recognize the potential of establishing a dedicate channel segmented towards the college market. New niche players began to emerge such as JobTrack.com and AfterCollege.com. These niche players provided a direct conduit to the up-in-coming college graduate pool, as well as, providing a channel for attracting college interns or part-time college employment.


6 The Online Recruiting Channels ...

Whether you are recruiter or job-seeker, the access to online employment and job sites can be overwhelming. Some believe there are now over 40,000 employment web sites available today. Navigating through this web of choices can be a challenge to even the most skilled internet surfer. All is not lost thanks to two sources: [www.weddles.com](http://www.weddles.com) and [www.careerxroads.com](http://www.careerxroads.com). These sources publish several guides to help both the recruiter and job seeker identify the most beneficial employment web sites for their needs. We have listed these sources, which are published yearly, for the reader. They are:

- CareerXRoads
- Weddle's Job-Seekers Guide To Employment Web Sites
- Weddle's Directory of Employment-Related Internet Sites
- Weddle's Recruiters Guide To Association Web Sites
- Weddle's Guide to Employment Sites

Peter Weddle's sources are often referred to as the Zagat's guide to the recruitment industry. They offer a detailed comparison of various sites, evaluation criteria templates, tools to pinpoint the best web site for a user's needs, feedback from other recruiters, site evaluations, user's attention span evaluation, candidate density, and many other useful criteria for the reader.

Gerry Crispin and Mark Mehler's CareerXRoads, contains over 3,000 web sites dedicated to the recruiting industry. Each web site is reviewed and described with such information as: contact information, number of resumes posted, number of jobs posted, type of discipline, type of specialty, as well as a final review of the site.

With the availability of such excellent resources, the purpose of this section is to highlight some of the most unique and/or interesting segmentations of these recruiting/resume websites. It is by no means a complete summary of all the knowledge collected in these resources (we didn't want to make it too easy for the reader 😊). This section should merely serve as an "appetite teaser" for what is available.

6.1 Types of Recruiting ...

For the purpose of this document we will classify the available recruiting methods into two broad and very distinct categories. These categories are online recruiting methods (i.e. a hiring company's web site, Monster.com, HotJobs.com, InfoGist.com) and traditional recruiting methods such as third party placement agencies like professional recruiting services, executive job search firms, referrals, etc.

While there may be instances when traditional methods utilize online methods (i.e. an executive search firm which has a web site to solicit candidates and/or available positions) we will view this as an enabling technology which assisted in delivering improved services.

In subsequent sections we highlighted many of the online services that were created within the past decade. We will only briefly describe a few additional online organizations which may be of interest. By in large, we will spend the next few sections spotlighting some of the third party placement agencies and more traditional methods.
6.2 College Recruiting 'Sandboxes'

College has this tendency to create a huge 'information network' with very little effort. Remember the days when you wanted to know which bar was having twenty-five cent drafts (oops, I guess they are probably one dollar by now ... sorry for the "dating"), all you had to do was ask one person, who either knew the answer or within one degree of separation could find someone who had the weekly list.

College 'sandboxes', a location where lots of similar people can be found, created a similar type of environment.

As a manager for Cisco Systems Incorporated (San Jose, CA), I was continually challenged to satisfy our rapid expansion needs with college interns that possessed specialized skills (more on this experience later). Weeks if not months were passing us by without receiving a sufficient amount of qualified candidates. Our department was suffering at the expense of this 'trickle effect'. One day someone suggested trying a 'college sandbox'.

With the drop of one web site address (www.JobTrack.com), which later became MonsterTrak -- via a Monster acquisition, our prospective candidate list morphed from a 'trickle' to a 'gusher'. Overnight, we had 300+ resumes, with first round interviews for many, scheduled within one week.

6.2.1 MonsterTrak

MonsterTrak is a unique college-level job service that serves more than a thousand universities such as UCLA, Fordham University, and the University of Michigan. Students attending one of the member colleges and universities can log on to the site by typing in a password. The password is unique to the college or university, and is required in most cases. 16

6.2.2 AfterCollege

AfterCollege has created a unique niche by providing a dedicate target audience to not only college graduates, but also to specific departments/professional societies. They provide a more 'laser-focus' approach to targeting potential candidates. The following is one company's experience.

AfterCollege delivered 741 of the 1200 resumes. AfterCollege pulled 40% more resumes and yielded 50% more hires than the other service providers ... The campaign yielded an 80% decrease in Apple's average cost-per-college hire. The target average cost-per-college hire was $10,000. The actual was $2,000. Apple's Vice President of Human Resources claims that this was the best recruiting campaign of his career. The campaign yielded an 80% decrease in Apple's average cost-per-college hire. The target average cost-per-college hire was $10,000. The actual was $2,000. 17

6.3 Online Career Fairs

Online Career Fairs, as the name implies, provide an opportunity to conduct a career fair online while still maintaining the one-to-one experiences. An example of an online career fair is hotu.com. www.hotu.com is representative of a new type of interactive application employers can customize to "meet and greet" online. Services like these actually create a real-time connection between groups of potential applicants and recruiters. 18


6.4 Third Party Placement Agencies ...

Many of us have, and/or will, use a third party agency at least once within our career. Some examples of this these types of agencies are.

6.4.1 Professional Employer Outsourcing (PEO)\textsuperscript{19}

A company literally "shifts" its employees (hopefully those that aren't critical to its mission) to a PEO allowing the company to focus on its core business. The "moved" employees are now managed and paid by the PEO and, essentially leased back to their old employer. According to Staffing Industry Analysts, Inc. (www.stireport.com) the Top Ten U.S. PEOs (prior to the newest listings after close of 2002) are listed below.

1. Administaff Inc. (www.administaff.com)
2. Gevity HR (www.gevityhr.com)
3. ADP TotalSource (www.adptotalsource.com)
4. Epix Holdings Corp. (www.epixweb.com)
5. TriNet Inc. (www.trinet.com)
6. Paychex Business Solutions (www.paychex.com)
7. Oasis Outsourcing Inc. (www.oasisadvantage.com)
8. Strategic Outsourcing Inc. (www.so1.com)
9. Presidion Solutions Inc. (www.presidionsolutions.com)
10. TeamStaff Inc. (www.teammstaff.com)

Table 6-1: The Top Ten U.S. PEOs

6.4.2 Temporary Staffing\textsuperscript{20}

Unlike an employee at a PEO that might work for one specific firm, employees that are supplied by temporary and contingent/contract firms will work one place one day and another the next week. According to Staffing Industry Analysts, Inc. (www.stireport.com), the Top Ten U.S. Personal Supply Agencies are:

1. Adecco Staffing Services (www.adecco.com)
2. Manpower Inc. (www.manpower.com)
3. Kelly Services Inc. (www.kellyservices.com)
4. Spherion Inc. (www.spherion.com)
5. Robert Half International Inc. (www.roberthalf.com)
6. TEKsystems Inc. (www.teksystems.com)
7. Volt Information Sciences Inc. (www.volt.com)
8. Randstad North America (www.randstad.com)
9. CDI Corp. (www.cdicorp.com)
10. On Site Engineering & Management Inc. (no web address)

Table 6-2: The Top Ten Temporary Staffing Agencies


6.4.3 Retained Executive Search

At the top end of placement are the retained executive search firms which are contracted for a specific assignment to find individuals for key roles in companies worldwide. The Executive Recruiter Newsletter, published by Kennedy Info (www.kennedyinfo.com), a division of BNA, lists the following firms as the world's largest:

- Korn/Ferry International (www.kornferry.com)
- Heidrick & Struggles (www.heidrick.com)
- Egon Zehnder International (www.zehnder.com)
- Spencer Stuart (www.spencerstuart.com)
- Russell Reynolds Associates (www.russreyn.com)
- Ray and Berndtson (www.RayBerndtson.com)
- The Amrop Hever Group (www.amrophever.com)
- TMP Worldwide Executive Search (www.tmpsearch.com)
- Whitehead Mann Group (wmann.com)
- Intersearch (www.intersearch.org)

There are approximately 4,000 search firms in North America, and of those, about 1,600 fit in the "retained" category. Retained firms have this distinction because they are paid monthly retainers to conduct a search, regardless of whether they find a candidate. The other category, called "contingency," includes search firms that are paid only when a candidate they find is hired.

6.5 Resume Distribution

A note to job seekers: We can't say it more strongly than this - Don't pay anyone to distribute your resume to recruiters. They really don't look at them. Typical services charge $25 to $50 along with the most preposterous claims and promises.

6.6 Vendor Management Systems (VMS)

According to a report offered for sale by Staffing Industry Analysts, Inc. (www.sireport.com VMS Decision Guide, 2002, $745), Vendor Management Systems are internet-based applications that enable companies (both staffing firms and their customers) to capture the information about the hiring and management of temporary and/or permanent staff.

The report lists 58 applications including many reviews along with detailed analyses about how to match company needs with the appropriate system. For employers it is important to understand that these systems may be stand alone websites such as www.eWork.com, www.elance.com or www.subcontract.com.

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They might be a feature of broad based applicant tracking systems like Deploy.com and Peopleclick.com or a module of an even broader enterprise wide system like PeopleSoft. The majority however are independent systems like White Amber (www.whiteamber.com) or part of the new service offerings of traditional temporary and contract staffing firms like Ultrasource owned by Manpower (www.manpower.com), Enthusiast owned by Spherion and WorkCard owned by Adecco.24

6.7 Executive Job Banks

The careers site at the interactive edition of The Wall Street Journal (www.careerjournal.com), lists executive-level positions in virtually all industries and markets. This site includes jobs published in the print edition of the Journal as well as unique job postings. Unlike the interactive edition, the careers site is open to the public and free.

Careerjournal.com has an exclusive collaboration with Korn/Ferry International, a New York-based search firm, for executives in the $75,000 to $150,000 salary range. This site, Futurestep, requires executives to complete an online assessment that creates a confidential profile stored in the Korn/Ferry database. The company then matches these profiles with its search assignments. This is, at best, a passive approach to job hunting, as you can't view the company's search assignments or determine how many are open.

For information technology executives, the web site of CIO magazine is a good source of opportunities at the CIO, vice president and director level. The Chronicle of Higher Education - this public web site is a good source of executive-level positions in academia.25

6.8 ‘Spiders’ and the ‘Web’ They Weave ...

With so many different web sites to search, it is no wonder, that someone found a way to optimize searching more than one site through a single interface. This is the principle behind ‘spiders’. According to Webster, a spider can be defined as:

Main Entry: spider
Pronunciation: 'spI-d&r
Function: noun

3: any of various devices consisting of a frame or skeleton with radiating arms or members

InfoGist publishes several products which provide an excellent example of a recruiting ‘spider’. InfoGist has over 350 web-based sources for finding active and passive job candidates. It utilizes an easy-to-use software application that searches over 150 Internet job banks/employment sites and 50 company web sites for great job leads.26


26 http://www.infogist.com/CareInfo.htm
The following table provides a brief overview of the different types, and their quantity, of sites which are searched through InfoGists' products.

<table>
<thead>
<tr>
<th>Skill Category</th>
<th>Total Sites</th>
<th>Fee Sites</th>
<th>Free Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative/Media</td>
<td>119</td>
<td>60</td>
<td>58</td>
</tr>
<tr>
<td>Engineering</td>
<td>131</td>
<td>67</td>
<td>64</td>
</tr>
<tr>
<td>Finance</td>
<td>118</td>
<td>61</td>
<td>57</td>
</tr>
<tr>
<td>Health Care</td>
<td>128</td>
<td>66</td>
<td>62</td>
</tr>
<tr>
<td>Human Resources</td>
<td>117</td>
<td>60</td>
<td>58</td>
</tr>
<tr>
<td>IT</td>
<td>198</td>
<td>113</td>
<td>85</td>
</tr>
<tr>
<td>Legal/Law</td>
<td>114</td>
<td>58</td>
<td>56</td>
</tr>
<tr>
<td>Math/Science</td>
<td>122</td>
<td>62</td>
<td>60</td>
</tr>
<tr>
<td>Management/Exec</td>
<td>117</td>
<td>58</td>
<td>59</td>
</tr>
<tr>
<td>Sales/Marketing</td>
<td>123</td>
<td>66</td>
<td>57</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>119</td>
<td>60</td>
<td>59</td>
</tr>
<tr>
<td>Trades/Niche</td>
<td>124</td>
<td>62</td>
<td>62</td>
</tr>
<tr>
<td>International</td>
<td>56</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Web Resumes</td>
<td>21</td>
<td>n/a</td>
<td>21</td>
</tr>
<tr>
<td>FlipURL for Resumes</td>
<td>5</td>
<td>n/a</td>
<td>5</td>
</tr>
<tr>
<td>Community Pages</td>
<td>7</td>
<td>n/a</td>
<td>7</td>
</tr>
<tr>
<td>Business News</td>
<td>38</td>
<td>3</td>
<td>35</td>
</tr>
<tr>
<td>College Sites</td>
<td>52</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Figure 6-3: InfoGist Source Availability by Skill Types

Below is an example of a user interface from InfoGists' Career Finder, a spider for finding advertised job positions. By entering a query once, Career Finder accesses hundreds of different free sites, fee sites, online job banks, company web sites and professional organizations. A letter grade is assigned to the results obtained and how well they match the desired specifications entered in the query.

Figure 6-4: Screen Capture from InfoGist (an example of a 'spider')
“Spiders” can significantly reduce the amount of work required to search the thousands of job related web sites which are positioned throughout the internet community.

One by product of their success, for better for worse, has been the emergence of practitioners labeled as “Do Nothing Recruiting (DNR)”.

DNR companies would operate from one essential principle; companies post their jobs in the Employment Sections of their websites. A DNR firm uses “spiders” to collect job openings “wraps” them and moves the “wrapped data” to a destination. All a Recruiter needed to do is post a job to the company website and the DNR Company handles the rest.27

6.9 Tricks of the Trade ...

A discussion couldn’t be complete, with out including some of the terminology and techniques which are used by both job seekers and position fillers. While terms such as spiders, snakes, moles, peeling, harvesting, etc. may sound like one is visiting the zoo, they are actually the names given to many of the techniques used in the recruiting industry.

Many of their tricks involve tailoring online searches to get through a company's home page to find internal directories and other contact information that isn't readily available to the casual visitor.28

Section 16.4 – Advanced Internet Recruiting Strategies, contains an overview of these techniques as taught by the online recruiting consultants Advanced Internet Recruiting Strategies (AIRS) and will be left as an exercise for the read.


6.10 The Top 10 Job Search Sites – by Unique Visitors

In an earlier chapter, we presented various methods to measure search firms. The “Top 10 Job Search Sites – By Unique Visitors” are listed below.

<table>
<thead>
<tr>
<th>Top 10 Job Search Sites, by Unique Visitors, March, 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOL Workplace</td>
</tr>
<tr>
<td>Monster.com</td>
</tr>
<tr>
<td>Jobsonline.com</td>
</tr>
<tr>
<td>Headhunter.net</td>
</tr>
<tr>
<td>Careerpath.com</td>
</tr>
<tr>
<td>Hotjobs.com</td>
</tr>
<tr>
<td>CareerMosaic.com</td>
</tr>
<tr>
<td>Careerbuilder.com</td>
</tr>
<tr>
<td>Jobs.com</td>
</tr>
<tr>
<td>Jobsearch.com</td>
</tr>
</tbody>
</table>

Source: Media Metrix, 2000

Figure 6-5: Top 10 Job Search Sites, by Unique Visitors (2000)

6.11 Top Company Sites for Job Seekers

Top Company Sites for Job Seekers 29

Apple Computer Inc.
Capital One Financial Corp.
Corning Inc.
Dell Computer Corp.
Eastman Kodak Co.
EMC Corp.
Exxon Mobil Corp.
Federated Department Stores Inc. (or Retailology.com)
General Motors Corp.
Intel Corp.
Kellogg Co.
Eli Lilly and Co.
McDonald's Corp.
Micron Technology Inc.
Microsoft Corp.
3M Co.
NCR Corp.
NIKE Inc.
The Procter & Gamble Co.
C.H. Robinson Worldwide Inc.
Rockwell Automation Inc.

Southwest Airlines Co.
Sun Microsystems Inc.
Texas Instruments Inc.
Xerox Corp.

Source: MMC Group, Kendall Park, N.J. (Copyright MMC Group, 1996-2002).

6.12 The Worst Company Web Sites for Job Seekers

The Worst Company Web Sites for Job Seekers *

Adams Resources & Energy*
The AES Corp.
Allied Waste Industries Inc.
American Financial Group Inc.
American Standard Companies Inc.
Barnes & Noble Inc.
Berkshire Hathaway Inc.
The Black & Decker Corp.
Comerica Incorporated
Costco Wholesale Corp.
Dover Corporation Inc.
Engelhard Corporation
Enterprise Products Partners L.P.
Fidelity National Financial Inc.
First Data Corp.
Group 1 Automotive Inc.
Host Marriott Corporation
D.R. Horton Inc.
IDACORP Inc.
Illinois Tool Works Inc.
The Interpublic Group of Companics Inc.
Interstate Bakeries Corporation
Kerr-McGee Corporation
Lennox International Inc.
Marsh & McLennan Companies
MeadWestvaco Corporation
Mohawk Industries Inc.
Nucor Corp.
Omnicom Group Inc.
ONEOK Inc.
Providian Financial Corporation
Smithfield Foods Inc.
Smurfit-Stone Container Corporation
TransMontaigne Inc.
United Auto Group Inc.
Wisconsin Energy Corporation
Xcel Energy Inc.

* No Web site.

Source: MMC Group, Kendall Park, N.J. (Copyright MMC Group, 1996-2002).
7 The Recruiting Process

To some the recruiting process is just a simple matter of matching resumes to the desired job positions. In fact, the process consists of much more than this 'narrow perspective'. To help provide a better representation for some of the tasks involved, the next few sections will give one manager’s perspective these vital activities, as well as, a perspective of how some of these activities were rearranged between the different industries ('old' vs. 'new').

These sections are by no means a full representation of the activities performed within this discipline and are meant to help better inform and/or inspire the reader. My apologies to those in the field, who believe this section deserves more space.

7.1 Six Phases ... More or Less ... On the Front-End

For the purpose of this study, the “front-end” of recruiting involves six basic activities. These activities are:

1. Profiling – determining position and candidate requirements
2. Searching & Screening – finding candidates that match positions and confirm their credentials
3. Routing – distributing prospective candidates to the hiring managers
4. Interviewing & Evaluating – interviewing the candidates and evaluating the candidate pool
5. Deciding & Offering – Deciding the compensation, benefits, etc. and making an offer
6. Accepting & Starting – Candidate accepting the offer and then starting their job

Figure 7-1: The Six Phases of Recruiting Activities (A Simplistic Approach)

Figure 7-1: The Six Phases of Recruiting Activities (A Simplistic Approach) graphically represents these activities. Additionally, Figure 7-2: The Six Phases of Recruiting Activities (A Graphical Approach) provides a more graphical representation of these phases.

Figure 7-2: The Six Phases of Recruiting Activities (A Graphical Approach)

Each of these areas, in itself, is capable of having enough content to form their own chapter. Unfortunately, for the purposes of this work, their discussion is beyond the scope of this work.
7.2 The Back End ... Information Technology Dependent

We have already seen that a significant number of companies invested heavily in automating and improving their front-end activities. By in large, ‘front-end’ activities produced the largest concentration of growth and companies for this industry.

However, like any initiative, improving one end of the process, often creates a bottle-neck in another. For the recruiting industry, it didn’t take long for one to see that as more and more information became available; parsing and routing this information to the appropriate teams became the next obstacle to improve.

For some companies this required a significant investment in information technology. Technology investment included new databases, customized software applications, and artificially intelligent parsing mechanisms, followed by a workflow tracking and management system.

One company which had initially emerged as having a strong ‘foot-hold’ in this area was Resumix (now a division of Yahoo Enterprise Solutions).

Today, Resumix offers a comprehensive back-end systems structured around their proprietary Resumix KnowledgeBase. Resumix’s KnowledgeBase resulted from more than 14 years of research and experience and includes:

- 183,000 linguistic rules
- 4,757 titles / job classifications
- 6,649 company names
- 2,690 university, college, and institution listings
- 22,973 competencies
- 115 educational degrees
- 585 college and high school majors
- 128 industry categories

Within the past year, Oracle and their iRecruit information system, have emerged as another strong player within this arena.

Oracle iRecruitment is a module within the Oracle Human Resources Management System (HRMS) suite that was released in May 2002. iRecruitment is a full-cycle recruiting solution that fully automates the entire recruitment process. iRecruitment is designed to enable the manager-recruiter-candidate hiring relationship. Internal and external candidates and applicants can submit and monitor the progress of their application through the Oracle iRecruitment candidate portal. An important aspect is the ability to accept a resume in any format and to integrate its contents into the applicant’s profile.31

Additionally, Oracle’s system is fully integrated with not only their module based systems, but other ERP or Human Resources systems which use standardized database formats. This type of highly integratable system produced such positive results as those experienced by TMP (Monster.com’s parent company) listed below.

"With Oracle HRMS we will be able to make strategic decision about our centralized, internet-enabled solution. And because Oracle truly understands how to harness the power of the internet and address the needs of a rapidly growing dot.com company such as TMP, our system will enable us to dynamically manage our workforce."
Margaretta Cullen, Senior VP - Global Human Resources, TMP Worldwide32


Proprietary systems, such as KnowledgeBase, have also enable process improvement and cycle-time successes. Chevron Texaco’s experience is one example of this success.

Under Chevron Texaco’s old system, recruiters filled out carbon-base records on each college candidate by hand and mailed it back to the recruiting center’s staff. Those forms were then forwarded to a third party to keypunch into a mainframe-based system.

As Mark Witzke, Director College Recruiting for Chevron Texaco explained, “Cycle time is critical—the students want to know as quickly as possible what your decision is. Using Resumix, we’ve cut two days off the cycle time.”

Chevron Texaco’s candidate recruiting process was predicated on a laborious system of manual, paper-based input into a lumbering mainframe system. That system—and those recruiting procedures—were ripe for change.

Chevron replaced its paper-based, carbon copy recruiting method with Resumix, greatly improving the cycle time from when an applicant’s resume is received to when it is reviewed by the appropriate hiring manager.33

7.3 The New Organization: An Era of Organizational Transformation

As described in “Changing Organizational Models”34, the 1950’s-1960’s formed the classical model of an organization—often referred to as the “old” model of an organization, where an organization was defined as having the following characteristics:

- Clearly delineated specialized individual positions and jobs
- A “formal hierarchy”
- Formal rules and standard operating procedures
- Set Boundaries for each department
- Standardized Training

Contrast this with the key features of the “new” model of an organization, which can be defined in terms of five complex, interacting features: networked, flat, flexible, diverse and global. Within the organization this translated into several specific sub-features:

- Teams as fundamental units of activities rather than individual jobs
- Cross-functional teams spanning across departments and sections of the organization
- Creating a system of sharing information (as opposed to the “old” model where information travels up and decisions travel down)

Figure 7-3: Some Contrasting Features of the Old and New Organizational Models, provides an overview of some of the behavior characteristics between these organizational models.


Individual position/job as a basic unit of organization
Relations with environment handled by specialist boundary-spanners
Vertical flows of information
Decision come down, information flows up
Tall (many layers of management)
Emphasis on structures
Fixed hours
Career paths upward, linear
Standardized evaluation & reward systems
Single strong culture with strong expectations of homogeneous behavior
Ethnocentric mind-set
Specialist international managers
Local value chains
Environment defined in terms of country of location

Team as the Basic Unit
Densely networked with environment
Horizontal and vertical flows of information
Decision made where information resides
Flat (few layers of management)
Emphasis on processes
Flexible workday, part-time workers
Career paths lateral, flexible
Customized evaluation & reward systems
Diversity of viewpoints & behaviors
International / global mind-set
Boundary-crossers at all levels
Value chains crossing borders
Environment seen as global

Figure 7-3: Some Contrasting Features of the Old and New Organizational Models

While these changes had occurred at the highest level within the organization, they were also being propagated down to the performance level of the individual. A paradigm shift was occurring within the mindset of the worker.

Workers were concerned with the importance of teamwork, versus the cavalier ‘star’ performer approach. Empowerment was driving the need for individuals to develop ‘stretch goals’ which would support taking more initiative and developing more innovated products. This was in contrast to the ‘old school’ thinking ‘doing what ever the boss wanted’, and the development of ‘silos’ for worker responsibilities. With the workforce becoming more empowered, the breadth of their skills and responsibilities began to widen. Teams became smaller and organizational efficiency was becoming a top priority versus the more traditional view of building large organizations or ‘empire building’.

Differences in these types of organizations also created a change in how people performed within the work force. While the transformation from the ‘classical’ to ‘new’ model of an organization was to offer many benefits for not only the company, but also the individual, it has acted as a catalyst for change throughout many of the disciplines within a company. Even the recruiting organizations were impacted by the changing organizations.

<table>
<thead>
<tr>
<th>Old Recruiting Strategies</th>
<th>New Recruiting Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grow all your own talent</td>
<td>Pump talent in at all levels</td>
</tr>
<tr>
<td>Recruit for vacant positions</td>
<td>Hunt for talent all the time</td>
</tr>
<tr>
<td>Go to a few traditional sources</td>
<td>Tap many diverse pools of talent</td>
</tr>
<tr>
<td>Advertise to job hunters</td>
<td>Find ways to reach passive candidates</td>
</tr>
<tr>
<td>Specify a compensation range and stay within it</td>
<td>Break the compensation rules to get the candidates you want</td>
</tr>
<tr>
<td>Recruiting is about screening</td>
<td>Recruiting is about selling as well as screening</td>
</tr>
<tr>
<td>Hire as needed with no overall plan</td>
<td>Develop a recruiting strategy for each type of talent</td>
</tr>
</tbody>
</table>

Figure 7-4: ‘Old’ Recruiting Strategies versus “New” Recruiting Strategies
Figure 7-4: ‘Old’ Recruiting Strategies versus “New” Recruiting Strategies, summarizes some of the techniques used by the different eras of recruiting. Recruiting was becoming a more proactive process which was linked to a strategic plan versus a reactive process.

These organizational changes, while they have been difficult, have created a new approach to acquiring and maintaining the human capital aspect of the company. This reliance further magnified by the changing demographics.

7.4 Demographics are changing

Not only was the type of organization changing, so was the workforce. The 1990’s marked a pivot point in history where the number of available skilled workers began to shrink. Some suggest that demographically for every one person entering the workforce there are two leaving. In the book, “The War for Talent”, the authors provide us with a valuable insight into these changing dynamics.

Companies’ reliance on talent increased dramatically over the last century. In 1990, only 17 percent of all jobs required knowledge workers; now over 60% do. More knowledge workers means it’s more important to get great talent, since the differential value created by the most talented knowledge workers is enormous. The best software developers can write ten times more usable lines of code than the average developers, for example, and their products yield five times more profit. Cisco CEO John Chambers put it this way: “A world class engineer with five peers can out produce 200 regular engineers.”

The authors further go on to predict that this trend will continue.

For the foreseeable future, organizations in most developed countries will be faced with a talent shortfall. In the United States, the demographics are such that it will be impossible to sustain strong economic growth due to the paucity of talent. Since 1965, the end of the baby boom era, the birth rate has declined by about one-third. This has resulted in a workforce population that is decreasing. Although the current robust economy will surely slow to some degree, the availability of indigenous talent is not going to reverse its course overnight. From 1996 to 2006, the percentage workers ages 25 to 34 will shrink 9% and those 35 to 44 will slip 3%.

Changing demographics, the emergence of new organizational behaviors compounded with the explosion of the internet; these are the forces which drove the explosion of eRecruiting. So how did these changes effect the organization from within? The next section will offer one perspective of the recruiting process.

7.5 The “Inside Story” ... One Manager’s Perspective ...

Over the past several decades, I have experienced significant differences in the overall operation processes and technologies used within the recruiting industry. Perhaps this may be the result of a company’s’ maturity level, employee generation differences, or a more widely cultural difference between the “old” organization and “new” organization as described in the previous section.

Nevertheless, the following sections will describe the recruiting process as performed during the 1990’s (the Internet boom years) within Silicon Valley.

7.5.1 Establishing the Need ...

The recruiting process for most internet growth companies in the 1990’s can be described as reacting to accelerated expansion plans. Because this expansion was ‘reactive’, managers were requested to justify their departmental expansion needs after they were already behind schedule. Additionally, a side-effect of being reactive is that they were always behind the curve of their departments’ product delivery expectations. Furthermore, this justification process competed with other managers within the same department for the limited pool of approved requisitions; who were also fighting the ‘behind the curve’ battle.

Justification typically involved identifying 1) the current work load and distribution across existing staff, 2) the requested projects that were needed (often already being outpaced by other smaller emerging companies) and 3) the total number of new positions needed to satisfy these demands.

Typically, the demand and/or need, over shot the available hiring capacity by a significant amount. This created an environment where managers began to compete for the limited availability of approved requisitions (a ‘req’ was the industry instrument used to hire employees. Without an approved “req” the organization couldn’t hire and in some instances couldn’t begin the interviewing process). Being constrained by the ‘limited availability’, often forced managers to intentionally either inflate their demand or have an extremely powerful and compelling ‘lost revenue’ case. Compounded by the fact that the requisition approval process was often a lengthy process, managers were conditioned to ‘double their needs’ knowing they may only get half of what they were requesting.

It is important to note, that not all managers practiced this ‘inflated justification’ approach. However it didn’t take many that did to significantly impact those teams that practiced a more ‘honest justification’ process.

To better regulate the expansion plans of the organization, requisitions were typically evaluated every calendar quarter. Thus, the time clock began to tick, starting with the request for requisition to the actual hiring of the new employee; all to be accomplished within three months (or quarterly).

7.5.2 Getting the Approval ...

Senior management then took these requests and made a ‘best guess’ on what their demand ‘really’ was. This estimate then worked its way up the organizational hierarchy until some ‘magical’ number was agreed upon.

Once a ‘magical’ number was agreed upon by senior management, it was up to each department to begin the process over again for the purpose of identifying which hiring manager received what percent of the total ‘pool’ of approved requisitions.

Most of the time (again, considering the rapid growth that was being experienced by the industry at this time), a hiring manager received a subset of their initial request. A few managers were fortunate to receive their full allotment. However, this happened more in a cyclic process. If this time a manager received a 100% of their requested allocation, then the next they may only get 50% of their request requisitions.

7.5.3 The Race to Hire ...

As the hiring manager, and having just received the departmental approval to hire a certain number of employees, your next step was to begin opening the communication channels with the departments recruiting organization. However, you weren’t alone. Every manager who had received an approved requisition was also competing for available time slots within the recruiting organization. Processing began sequentially to those managers who got to the recruiting team first.

Additionally, another limitation of the system was having the resumes of potential candidates ‘getting stuck in the system’. Many companies still used the ‘routing by paper’ method, which caused either a bottleneck between managers reviewing the stack of resumes (left on their desk while they are on vacation), or a delay in getting the ‘routing stack’ to the managers (i.e. time taken to make the copies, bind and route – could have added another week or so to the distribution cycle).

Even though it didn’t take very much time to connect with a representative within the recruiting department, every second on the hire clock mattered.
7.5.4 The company Recruiting Department ... “Guns for Hire”

An important element of this process was without a doubt the recruiting department. Gone were the days when a company’s recruiting department consisted of full time employees whose primary and only job was to perform the recruiting activities for the department.

Companies recognized that hiring was a very cyclic function with drastic peaks and valleys, where the ‘valleys’ consisted of zero to no activity. As a response to better manage their workforce and the overhead costs associated in having full-time recruiters on the payroll, companies turned to more of a western movie ‘guns for hire’ approach.

The ‘guns for hire’ approach changed the employment status of the recruiting organization from full-time employees to ‘short term’ contract employees. Contracts were often made with each individual department allowing the recruiters to ‘float’ between departments for some period of time.

Some argue that while this helped reduce the departmental costs, it created an environment which may not have had the best ‘long-term’ interest of the department in mind. Short-term contracts, in many cases, lead to a contractor that was paid by the hour or some percentage of the salary for those that were hired. Each contractor was then rewarded for the total number of people they could hire and/or how much the compensation package was for each new hire. The negative impact of this reward system and organizational structure meant individuals may not have been the best match for the company culture and/or requested skills.

As much as organizations and department tried to hire the best candidates, hiring in the “valley” (Silicon Valley) was moving at such a fast rate, that it was not uncommon for candidates to be unemployed in one week and have three or more offers (especially the good candidates) the next week with 30% or more increase in salary as well as an improved title. So not only were managers competing for qualified candidates within their own departments, but also with the hundreds of other companies that were growing exponentially within the ‘valley’.

Managers were faced with another challenging ‘time problem’; the time it took candidates to find a competing offer - a bargaining tool for employees looking for a new job and where six months to a year between jobs, was considered normal for the ‘valley’. As much as this was frowned upon, reality couldn’t be changed. The sad reality was that many college graduates went from graduation to director in less than two years.

7.5.5 Use it or lose it Penalty System ...

Another strong reward reinforcement within the requisition process was the ‘use it or lose it penalty system’ created by the company/organization and/or department. The ‘use it or lose it system’ work something like this. If you were a hiring manager, and you received approval to hire ten requisitions (or new hires), you had to fill these positions within the quarter (three month period) for which they were approved.

One’s first reaction might be that three months is plenty of time to fill positions (in this case – ten – new hires). Though, an important oversight, is that the three month period started during the ‘establishing the need’ phase of this process. For many years, requisitions were approved one to two months into the three month cycle. So what was initially three months to hire ten people, now became two to one months to hire ten people - a slightly more difficult task. The good news, is that companies eventually realized they were constantly behind ‘the eight ball’ in their hiring process and started become more proactive vs. reactive. Unfortunately, this realization occurred very short to the collapse of the ‘internet bubble’.

Back to the ‘use it or lose it penalty system’, a further reinforcing mechanism of this system dynamic model was the self reinforcing loop for success. If the hiring manager was able to hire all their allotted requisitions, then the next time they submitted their desired quantity of requisitions (for the next quarter) they were often given their full allotment. Thus, a managers hiring success was determined by their ability to fill all their allotted requisitions and not necessarily whether the candidate was the best for the job. An honor system was assumed to have ensured that only the ‘best’ candidates were hired for the desired positions. But, there was no long term metrics, post mortems, or policing functions, performed to verify this actually occurred. Hence, managers were rewarded for building their ‘empires’ and not necessarily sustaining a successful team.
Further strengthening this system was the penalty to the department if a manager didn’t make their assigned allocation. Not only was the manager punished for the next round of hiring, so was their department. In others, if the department didn’t meet their allocation requirements, they were penalized in a similar fashion (reduced requisition allocation) for the next quarter.

7.5.6 Rewarding Empire Building

An organizational empire is often characterized by the total number of employees within the department or reporting to a particular manager. Managers build empires because of the reward systems surrounding the corporation and department. Unfortunately, the perception (and reality) within this reward system was that the more people a manager had, the more power they will have to negotiate their promotion; which means more money and upward visibility. Furthermore, in a time of an economic down turn, a large empire could help to protect the manager’s position within the organization.

There is an implicit tension between the recognition that what is good for the firm may not be good for the system as a whole, and the recognition that the competitiveness of the firm is closely related to the comparative advantage of the economic and social system in which it is embedded.37

While some may disagree with the motives, empire building is a form and realistic contribution to the management-shareholder “principle agent problem” and is reinforced by the corporate reward systems. A subset of such reinforcing norms and/or rewards is:

- A manager may receive an office with doors, if they have more than x direct reports
- To be a Director, a manager must have more than x+y people in their organization structure
- To be a VP, a manager must have more than x+y+z people in their reporting structure
- Monetary rewards varied within the organizational hierarchy

Below is a summary which describes the recruiting process as experienced within the valley, as well as other geographic locations.

Recruiting was practiced as a reactive art. The employment requisition, itself a highly politicized instrument, is issued following the agreed upon determination that a need for a new or replacement employee exists. Given typical organizational functioning the “req” was traditionally released between 6 days and 6 months after the requirement became clear. As a result, a professional recruiter was on the receiving end of the organizations slowness to respond to market conditions. This created an environment that was failure prone and layered with "ass covering".38


8 The Networked Virtual Organization (NVO)

"The Networked Virtual Organization (NVO) is a business model based on two basic assumptions: companies and government organizations will add value on a sustainable basis by focusing efforts on ‘core capabilities’. They will rely on systems and outsourcing partners for those responsibilities that others can do more effectively; at the heart of this model is increasing productivity using networking technology to appear as one virtual entity to their customers."  


The concept of a Networked Virtual Organization (NVO) was created by Cisco Systems to help define a method used by successful companies. Even though the concept is relatively new, Cisco has published numerous white papers and presentations for the general public.

Since the NVO framework is relatively new, all the material for this section has come from previously published Cisco material. The reader should view this section as a summary of this work and may find the references useful for gaining a deeper understanding.

While many factors contribute to the success of the best performing organizations, Cisco found that successful organizations had several things in common. Each had a culture and structure focused on improving the end-customer experience. Each focused its own operations on functions where it could excel, and relied on partners to take on tasks that did not differentiate it with customers. And each was standardizing its business operations, data, and information technology, allowing it to operate more efficiently, internally, with outside partners, and especially with customers. Those organizations that pursued all three of these strategies in parallel were often the most effective. Cisco, having used this three-pronged strategy long before consulting firms gave each part a variety of names, came to call it the networked virtual organization (NVO).39

8.1 The NVO Defined ...

Simply stated, an NVO is a business model that an entity (that is, a single company or organization) adopts for working with two or more external entities to create a new “virtual entity” to deliver either a specific product or service. One of the requirements of an NVO is a network foundation that allows these connections between entities.

The adoption of an NVO business model, in conjunction with technology advances, has allowed a company or organization to make more rational core-versus-context decisions by enabling it to outsource or out-task systems or processes that add no sustainable advantage. Simply, a company can now outsource the activity but retain control over the process.

In essence, the organization that adopts an NVO business model has the competencies to create and manage a networked virtual ecosystem of companies that work together for a specific purpose, for a specific period of time, to deliver products or services. Many companies have adopted the NVO business model, including the following:

- Wal-Mart stores’ suppliers have delivered goods to the company based on near real-time information from an NVO model for at least a decade.
- Automotive companies, such as Toyota Motor Corporation, have used the NVO business model for just-in-time parts inventory for years.
- Many energy companies have used the NVO business model for oil-field services and other advanced technology services for 50 years.

---

Cisco Systems has successfully employed the NVO business model for its manufacturing operations for the last six years.

When executed properly, an NVO business model increases productivity and reduces costs through the continuous improvement of core-versus-context assessments. Company decision makers have always known they were not good at all aspects of operating a business.

The more astute companies went through the exercise of determining which activities they could out-task or outsource, either because the activities didn’t add value or it was more cost-effective to pay others to perform them.\textsuperscript{40}

8.2 Fundamental NVO Principles

The NVO is not in fact a new concept, but it is a relevant topic. Based on the lessons learned from companies that are adopting and creating NVO business models, a number of new, underlying principles are emerging. The three essential principles include customer focus, continuous standardization, and core versus context.\textsuperscript{41}

\begin{center}
\begin{tikzpicture}

% Code for the diagram (simplified for text representation)

\end{tikzpicture}
\end{center}

\textbf{Figure 8-1: Driving Factors of an NVO}

8.2.1 Customer Focus

The company or organization, as well as all participants in the company’s networked virtual ecosystem, must be able to take the customer’s point of view, drive it through the ecosystem, and mobilize the organization and its networked ecosystem participants to be customer-centric. In many instances, this means having real-time information and collaboration among the ecosystem participants, including the customer.

One of the benefits drawn from this form of collaborative, networked ecosystem is an innovative and agile process. Another is a product or service that ultimately benefits the


customer focus is largely about top-line growth and better reaction to market demand.\textsuperscript{42}

Customer-centric organizations show increased revenue growth because they can respond faster to changes in customer demand. They are also more profitable because customers are more willing to pay a premium for the goods and services that they want. Organizations that focus on their core, and partner with other organizations to do the rest, are vastly more efficient, benefiting from the economies of scale their partners can achieve. They make better use of their own capital, assets, and human resources. Organizations that use standard business processes, sets of data, and technology, operate more efficiently internally, and have an easier time linking their operations with their business partners.\textsuperscript{43}

8.2.2 Continuous Standardization

Pervasive, powerful, and inexpensive information and communications technologies that are available today didn’t exist even two or three years ago. These technologies converge data, voice, and video over a single network; they allow all participants in the networked virtual ecosystem to use a single definition of (or format for) data and a single instance or source of information. They make it possible for all participants in the ecosystem to use standardized processes to perform the same activities, regardless of location.

These technologies enable real-time communication and collaboration within a networked virtual ecosystem and bring economic and financial benefits to the customers and partners within the ecosystem. By removing redundancy, cost, and time, convergence is largely about expense efficiency.

The third key strategy of an organization that has adopted an NVO approach is that it has settled on standard business processes, standard sets of data, and standard IT systems - in short, continuous standardization. These standards allow the organization to operate much more efficiently than it otherwise could, and allows groups of NVOs to operate more efficiently and function essentially as one.

NVOs need to establish standard business processes inside their organizations as well as with partners on the outside. Some companies, for example, might have different ways of handling customer orders depending on whether they came in over the Web, over the phone, in the mail, or in a store. This makes it difficult for the company to quickly gauge customer response to new items or sale prices. And it makes it next to impossible to create a just-in-time inventory management system run by the company’s suppliers.\textsuperscript{44}


8.2.3 Core versus Context

A core activity is something a company or organization does that contributes to the company's own competitive advantage. For example, a company might view advanced chip design or new product development as core activities. A non-core or context activity is something that does not contribute directly to the company's competitive advantage. In most instances, a poorly performed context activity does not necessarily pose an immediate risk to the company. For example, most companies would consider benefits administration a context activity.45

One of the key strategies of an NVO approach is that it responds rapidly to customers' needs, and changes in customer demand. Companies that can respond quickly to consumers often sell more products and services at a higher profit margin. Companies that respond slowly to consumers often fall behind their competitors, losing market share and profitability.46

<table>
<thead>
<tr>
<th>CORE</th>
<th>CONTEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any activity that contributes to competitive advantage for the organization</td>
<td>Any activity that does not contribute to competitive advantage for the organization</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mission critical</th>
<th>Context transition applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any activity that, if performed poorly, would pose an immediate risk to the organization</td>
<td>• Engage and control</td>
</tr>
<tr>
<td>• Continuous in-house</td>
<td></td>
</tr>
<tr>
<td>Non-mission critical</td>
<td>Any activity that, if performed poorly, would not pose an immediate risk to the organization</td>
</tr>
<tr>
<td>• Disengage and entrust</td>
<td></td>
</tr>
<tr>
<td>• Out-task and maintain a lot of control</td>
<td></td>
</tr>
</tbody>
</table>

Figure 8-2: NVO: Core vs. Context

NVOs map the functions of their business against these four areas. Functions that are mission critical and core should generally be performed by the organization itself. Functions that are not mission critical, and therefore context, can usually be handed over to partners. Large scale e-business application investments transition mission-critical activities from core to context. Non-mission critical activities can generally use a simpler, portal approach.

45 IQ Magazine; "The Networked Virtual Organization: A Business Model for Today's Uncertain Environment" by John Sifonis, Cisco Systems; available from; http://business.cisco.com/prod/proc/lt%3Fasset_id=89983%26ID=44746%26listID=44691%26public_view=true%26kbs=1.html; Internet; accessed 4, April, 2003.

8.3 The NVO Framework

The NVO Framework consists of an evolution process from an organization which concentrates on Functional Application Development where tools are developed to automate various applications. As the organization matures, it progresses into the next level of maturity possessing Functional Internet Capabilities. This level emphasizes the integration of business processes within the organization paving the way for the next phase – the phase of Cross Functional Internet Capabilities.

The Cross-Functional Internet Capability phase is the last phase of maturity before a company reaches full NVO maturity. This phase concentrates on integrating business processes across different business functions and/or organizations. NVO is achieved when multiple organizations are able to achieve a seamless integration of cross business functions within the company and where information is shared across these organizations. Figure 8-3: NVO Framework, graphically represents these maturity levels.

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8.4 NVO Industry Adoption

While all organizations can benefit from adopting an NVO strategy, some have more immediate potential than others. The following three criteria are indicators of the types of industries where one is most likely to have significant success:

- Industries that have a large number of transactions and associated transaction costs, both within the enterprise and between the enterprise and its suppliers and customers, such as retailing.
- Industries where the organization, its partners, and its customers are heavy users of information technology, such as a brokerage services.
- Industries that are dominated by a handful of leading organizations that can credibly take on the role of an NVO - orchestrator, such as automobile manufacturing.

![Table: NVO Industry Adoption](image)

**Figure 8-4: Migration Path in becoming an NVO**

Organizations in the financial services, high-technology, and automobile manufacturing industries are among the most progressive adopters of NVO strategies. Based on the above criteria for success, organizations in the banking, public sector, travel and retail industries are adopting NVO strategies as well.\(^\text{48}\)

8.4.1 NVO Migration within Human Resource Departments

Human Resource departments can also benefit from the NVO methodologies. For Cisco Systems Inc., the Human Resource NVO migration took five to six years. Initial Human Resource functions consisted of placing the employee benefits on line. Next, recruiting activities were migrated to the company’s intranet, as well as, a manager knowledge base which became the foundation of the Managers Dashboard (a company portal to management activities, company presentations, and various other human resource information for managers).

By the end of the fifth year of this migration, Cisco’s Human Resource activities resulted in a company-wide cross departmental ‘self service’ station for all the necessary Human Resource activities pertaining to not only the managers but also all employees. A timeline of these activities can be found in Figure 8-5: NVO Migration Path for HR Departments.

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8.5 Economic Impact NVO...

The first question every executive should ask about the Networked Virtual Organizations (NVOs) is this: What are the financial benefits of embarking on the NVO path? Because only real, quantifiable economic returns justify undertaking the changes that are required as part of the NVO approach. The good news is that there is clear and growing evidence that companies using NVO strategies do outperform their peers on a wide variety of economic metrics. Wall-Mart’s revenue growth is 20% above the industry average. Lockheed Martin has reduced design costs on its new fighter aircraft by 50%. And Dell Computer’s return on invested capital is triple the industry average. These world-leading companies all used NVO strategies to help achieve these gains. Higher revenue growth, lower operating costs, and improved asset management are three of the key benefits of taking an NVO approach.

Organizations that focus on their core, and partner with other organizations to do to the rest, are vastly more efficient, benefiting from the economies of scale their partners can achieve. They make better use of their own capital assets, and human resources. Organizations that use standard business processes, sets of data, and technology, operate more efficiently internally, and have an easier time linking their operations with their business partners.49

Figure 8-6: NVO Impact on Enterprise Economics, summarizes the organization level of integration, their business process changes, and the impact of these changes economically for the organization.

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<table>
<thead>
<tr>
<th>Level of external integration</th>
<th>Business process changes</th>
<th>Impact on enterprise economics</th>
</tr>
</thead>
</table>
| Moderate                     | Customer, suppliers, and business partners view information on-line (e.g., product information, manufacturing schedules, engineering schedules) | Productivity increases (less headcount) as communication is avoided  
Out-of-pocket expenses decrease (e.g., phone, fax, courier)  
Better coordination of production schedules, shorter delivery times, improved quality, faster cycles, less inventory, increased customer satisfaction |
| High                         | Most interactions with customers and trading partners are automated  
Transactions between databases and computer applications | Productivity increases even further as people are taken out of the process  
Automated nature avoids human errors (quality improvements), allows real time coordination, shortens cycle time, optimizes process  
Automated processes allow 24-hour availability, resulting in revenue and customer retention increases, acquisitions of new customers  
Standardization of automated processes, resulting in lower cost of ownership |
| Very high                    | Companies remove activities that duplicate those performed by customers, suppliers, and business partners | Processes are outsourced to specialist firms which perform activities more efficiently  
Significant headcount reductions or re-deployment can be achieved as activities are stopped externally, resulting in sharp drops in sales per employee  
Capital utilization is far less as processes go external (e.g., leases, working capital)  
Strategic reductions in cycle time by bill factors, invent and develop new products, manufacture or procure supplies (e.g., time to deliver a custom order cut has decreased by 20% since 1985 to 35 days)  
Customer satisfaction increases as customer participation in processes, can share in value creation, can do more one-stop shopping if desired and align partners with customer needs  
Reduced inventories speed up time to go after new markets |

Figure 8-6: NVO Impact on Enterprise Economics

### 8.6 The NVO Implementation Plan

Creating an NVO implementation plan consists of eight phases. These phases are:

1. Identify the current business model along with its’ existing and potential NVO process.
2. Assess today’s business processes
3. Determine Customer service needs and desires
4. Look at future business processes
5. Focus on Technology that benefits the customer
6. Determine the maturity stage of the NVO infrastructure
7. Select and develop a portfolio of NVO IT projects
8. Prioritize the NVO implementation process

---

A summary of these phases and their underlying activities may be found in Figure 8-7: Creating an NVO Implementation Plan. Further implementation details, are outside the scope of this document and may be found in the reference "Making Money the NVO Way: The Bridge – Connections Business and Technology Strategies" available on Cisco Systems Incorporated website (www.cisco.com).

8.7 NVO Summary

Implementing an NVO strategy is an ongoing process, not a one-time event. Organizations must continually revisit questions such as what is core and what is context; which business processes should be standardized and which should remain unique; and what is the nature of the Networked Virtual Environment that it is a part of. How an organization answers these questions will determine the best way to increase shareholder's value. Each of the NVO strategies generates bottom-line value.51
CREATING AN NVO IMPLEMENTATION PLAN

IDENTIFY CURRENT BUSINESS MODEL, AND EXISTING AND POTENTIAL NVO PROCESSES Cisco has developed an "NVO Readiness Survey" to assist in this process, using four pillars:

- Leadership Pillar: Measures how outward looking and focused the enterprise is on competitive business requirements and customer needs.
- Governance Pillar: Evaluates how well the enterprise has identified escalation procedures, recourses and penalties, within the organization and with its partners.
- Competencies Pillar: Assesses the enterprise’s resources and supporting business culture to adapt and collaborate with partners in an NVE.
- Infrastructure Pillar: Considers if the enterprise has strong business operations and oversight capabilities in areas like manufacturing, warehousing, and transportation.

ASSESS TODAY’S BUSINESS PROCESSES: Analyze all aspects of your current business model.
- Identify what business operations are core processes and define the company’s value-added.
- Identify what business operations are context but mission-critical.
- Identify what business operations are process and non-mission critical.
- Identify what business operations are context and non-mission critical.

DETERMINE CUSTOMER SERVICE NEEDS AND DESIRES: Develop a view of the customer’s future needs.
- Who will the customer be in the future, and what will impact is that have on distribution?
- How will quality issues impact the organization?
- How will product innovations impact our market share and our ability to react?
- How will costs and prices impact our ability to meet customers’ expectations?
- How will customers’ perceptions of style and seasonality impact our business?

LOOK AT FUTURE BUSINESS PROCESSES: Imagine what the enterprise would be like if it could be re-created from scratch as an NVO.
- How would the new organization react to future customer needs and desires?
- Define the core and context business processes and how they are different from those of the current enterprise.
- Evaluate the competitive advantages of the new business model and the competitive threat from other businesses deploying or NVO model.
- How would the organization collaborate with partners and allow them to be part of the NVE, yet be held to the same performance standards and quality metrics that are used in your own business?
- Identify what capabilities the NVE could deliver to create an "unfair competitive advantage.”

FOCUS ON TECHNOLOGY THAT BENEFITS THE CUSTOMER: Develop a strategy to drive continuous value creation for the customer.
- How will the future NVO provide value in an improved experience to customers?
- How will the NVO create a link between customer experience and innovation?
- How will the NVO provide the right product or service to the customer at the right time?

DETERMINE MATURITY STAGE OF NVO INFRASTRUCTURE: The NVO’s future success hinges on its ability to manage trusted information across the NVE.
- Are we experienced in selecting and implementing new telecommunications and emerging technologies?
- Do we have experience applying external logistical assets?
- Do we have strong external business operations and oversight capabilities in areas such as manufacturing, transportation, warehousing?
- Have we identified the accountability and roles for business activities within our organization and those of our partners?
- Is the organization prepared to deploy an Intelligent Network?

SELECT AND DEVELOP A PORTFOLIO OF NVO IT PROJECTS: Choose a portfolio of NVO projects to implement and manage them with a value-centric outlook; evaluating the number, size, age, performance, and risk of each process.
- What will be the strategic alignment of IT initiatives with business goals?
- Identify ROI components and strategic benefits, not just reduced costs.
- Assess the risk of doing and not doing the project.

PRIORITY IMPLIMENTATION PROCESS:
An NVO deployment process begins with a series of consensus-building facilitated sessions, evaluating the resources needed to implement the envisioned NVO processes:
- People: What are the workforce competencies required to implement the NVO processes?
- Processes: What are the work processes employed by those charged with carrying out newly deployed NVO processes?
- Infrastructure: Evaluate the IT infrastructure requirements, as well as necessary and operational requirements.

At the end of this process one should develop a six-month action plan to deploy a series of NVO pilot projects.
9 The Projected Economic Benefits of the Internet – Net Impact Study

Before beginning our discussion on the Return On Investment (ROI) for the recruiting industry, it is important to highlight the effect Information Technology (IT) has had on the economy. For this we can think of no better source, than The Net Impact study, a project conducted by Hal Varian of the University of California-Berkeley, Robert E. Litan of The Brookings Institution, the Momentum Research Group, and sponsored by Cisco Systems.

The Net Impact study was designed to measure the current and anticipated cost savings and revenue increases that organizations believe have been created by their investment in Internet business solutions. Ultimately the goal of the study is to translate current and anticipated costs savings (directly related to Internet technology) into an estimate of the impact on productivity growth rate in the economies of the United States, United Kingdom, France and Germany.52

As we have done in previous sections our intention will be to summarize this sixty page study by referencing applicable sections where appropriate. Our intentions are not to provide a complete discussion of this work.

9.1 Periods of U.S. Productivity Growth

Since the end of World War II, the United States has had roughly three distinct periods of productivity growth. Between 1948 and 1973, now looked back on as the "golden age," productivity marched upward at close to three percent annually, a rate that doubled average incomes during this period.

![Three Distinct Periods of U.S. Productivity Growth](image)

Figure 9-1: Periods of U.S. Productivity Growth

This extraordinary economic performance, well above prior historical norms, is generally attributed to the legacy of technological advances pioneered before and during World War II, which were unleashed in the domestic economy right after the war.

The second period started with the oil price shock of 1973-1974 and productivity growth slowed dramatically, increasing at about 1.4%, or about half the rate as in the preceding quarter century.

By the end of the mid-1990s, the productivity slowdown was such an accepted "fact" of economic life that few economists or other analysts saw much hope of significantly reversing it.

Beginning in 1995, a year in which the U.S. economy seemed already to have bounced back from the 1991-92 recession, productivity growth began to surge again, averaging 2.5% until 2000.

One school of thought is that productivity improvements in the IT industry and in the use of IT in the manufacturing sector alone explained most of the productivity miracle. A different school of thought is that the vast improvements in the IT sector were not just confined to IT itself or to the manufacturing sector. The evidence for this proposition comes from various studies finding that productivity improvements in the post 1995 period have tended to be concentrated in sectors of the economy. This includes the services industries, whose output makes up most of the economy.\(^5\)

### 9.2 Summary of Findings from the Net Impact Study

Organizations in the United States, United Kingdom, France and Germany currently deploying Internet business solutions have realized a cumulative cost savings of $163.5 billion with the majority of the savings occurring since 1998.\(^5^4\)

<table>
<thead>
<tr>
<th>Current Financial Impact of Internet Business Solutions in U.S.</th>
<th>Expected Financial Impact of Internet Business Solutions in U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Estimate</strong></td>
<td><strong>Expected Estimate</strong></td>
</tr>
<tr>
<td>Revenue Increases(^2)</td>
<td>$443.9 Billion</td>
</tr>
<tr>
<td>Cost Savings(^2)</td>
<td>$156.2 Billion</td>
</tr>
</tbody>
</table>

\(^1\) Estimated impact on U.S. economy only from organizations that have implemented IBS and have reported cost savings and/or revenue increases.

\(^2\) Cost savings and revenue increases are cumulative from the earliest year of implementation through 2001 and are based on estimates reported by companies participating in study.

\(^3\) Projected cost savings and revenue increases are cumulative from the earliest year of implementation through 2010 and are based on estimates reported by companies participating in study.

**Figure 9-2: Current and Expected Impact of IBS (U.S.)**

---


![Percent of Organizations That Began Any IBS Implementation in Specified Year](image)

Figure 9-3: Percent of Organizations that began any IBS Implementation

The adoption of Internet business solutions is occurring in more than just large enterprises, dotcoms and technology companies.  

![Penetration of Internet Business Solutions Among US Organizations](image)

![Penetration of Internet Business Solutions Among US Organizations](image)

Figure 9-4: Penetration of IBS among U.S. Organizations

---


U.S. organizations deploying Internet business solutions have already realized costs savings from their efforts.57

![Penetration of Internet Business Solutions Among US Organizations](image)

**Figure 9-5: Penetration of Internet Business Solutions (U.S. Organizations)**

U.S. organizations that are currently deploying Internet business solutions expect to realize more than $5 trillion in cost savings once all Internet businesses solutions have been fully implemented by 2010.58

![Internet Business Solution Impact on Increase in US Productivity Growth Rate](image)

**Figure 9-6: IBS Impact on U.S. Productivity Growth Rate**

---


The adoption of the Internet business solutions is occurring in more than just enterprise-sized organizations, dotcoms and technology companies. Of the organizations sampled in the United States, 61% have already implemented Internet business solutions. Enterprises (5000+ employees) have a larger adoption rate, with 83%.\textsuperscript{59}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{IBS_Penetration.png}
\caption{IBS Penetration (U.S. & Top 3 European)}
\end{figure}

\begin{itemize}
\item \textsuperscript{59} Varian, Hal; Litan, Robert E.; Elder, Andrew; and Shutter, Jay; "The Net Impact Study: The Projected Economic Benefits of the Internet In The United States, United Kingdom, France and Germany"; 2002, v2.0, January 2002; available from \url{http://www.netimpactstudy.com/NetImpact_Sudy_Report.pdf}; Internet; accessed 05, April, 2003; 19
\end{itemize}
U.S. Organizations deploying Internet business solutions have already realized cost savings from their efforts.\(^{40}\)

![Average Completion Level of Internet Business Solutions](image)

![Average Adoption Level of Internet Business Solutions](image)

Source: Net Impact Study

Figure 9-8: Average Completion & Adoption Level of IBS

Internet business solution implementation is at varying stages of completion.\(^{41}\)

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>100 or fewer</th>
<th>101-200</th>
<th>201-500</th>
<th>501-1,000</th>
<th>1,001-5,000</th>
<th>5,001 +</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Marketing</td>
<td>74%</td>
<td>59%</td>
<td>58%</td>
<td>54%</td>
<td>76%</td>
<td>68%</td>
</tr>
<tr>
<td>Customer Service and Support</td>
<td>73%</td>
<td>65%</td>
<td>72%</td>
<td>68%</td>
<td>76%</td>
<td>56%</td>
</tr>
<tr>
<td>E-Commerce</td>
<td>50%</td>
<td>56%</td>
<td>55%</td>
<td>34%</td>
<td>55%</td>
<td>69%</td>
</tr>
<tr>
<td>Finance and accounting</td>
<td>30%</td>
<td>46%</td>
<td>45%</td>
<td>46%</td>
<td>46%</td>
<td>33%</td>
</tr>
<tr>
<td>Human Resources</td>
<td>32%</td>
<td>48%</td>
<td>42%</td>
<td>35%</td>
<td>41%</td>
<td>53%</td>
</tr>
<tr>
<td>Procurement/MRO</td>
<td>33%</td>
<td>31%</td>
<td>32%</td>
<td>28%</td>
<td>23%</td>
<td>58%</td>
</tr>
<tr>
<td>Sales Force Automation</td>
<td>26%</td>
<td>34%</td>
<td>34%</td>
<td>32%</td>
<td>19%</td>
<td>43%</td>
</tr>
<tr>
<td>Supply Chain Management</td>
<td>26%</td>
<td>40%</td>
<td>26%</td>
<td>27%</td>
<td>22%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Source: Net Impact Study

Figure 9-9: IBS Implementation Stage by Functional Area

---


Organizations are experiencing increased customer satisfaction and attraction from their Internet business solutions.\(^\text{62}\)

Figure 9-10: Creating an NVO Implementation Plan

Metrics for tracking exist, but are not pervasive or standardized\(^\text{63}\)

Figure 9-11: Lack of Tracking Metrics for IBS Deployment

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9.3 Lasting Impressions ...

Just in case the reader may have missed the last chart ... on the average 63% of the businesses surveyed either didn’t use any metrics for measuring the success of their Internet Business Solutions deployment; or didn’t know what types of measurements may be used. More on this observation in the sections to come.

So where is the money going?

In the previous section we saw that there was a significant increase in the spending for Internet Business Solutions. Internet Business, aka e-Business, has been defined as:

"... Doing business electronically by completing business process over open networks, thereby substituting information for physical business process. This definition is broad, encompassing business-to-business (B2B), business-to-consumer (B2C), and consumer-to-consumer (C2C) interactions ... the essence of e-business is completing business processes over easily accessible computer networks ..." 64

9.4 Information Technology Spending

While the spending for e-Business was impressive, what is more impressive is the spending for Information Technology, a spending superset of e-Business spending. According to the American National Standard Telecom Glossary 2000 Information Technology is defined to be:

information technology (IT): The branch of technology devoted to (a) the study and application of data and the processing thereof, i.e., the automatic acquisition, storage, manipulation (including transformation), management, movement, control, display, switching, interchange, transmission or reception of data, and (b) the development and use of the hardware, software, firmware, and procedures associated with this processing.

Additionally, it is important to understand why companies make the investment in technology. In the book, Leveraging The New Infrastructure from Harvard Business School Press, Peter Weill and Marianne Broadbent have identified what they believe the main reasons are why companies invest in information technology.

Firms invest in information technology to achieve four fundamentally different management objectives: transactional, infrastructure, informational, and strategic. These management objectives then lead to information, transactional, infrastructure, and strategic systems, which make up the information technology investment portfolio.65

---


9.5 Historical IT Spending

Now that we understand the reasons why firms make an investment in this technology, we can begin to understand the actual amount of money spent to achieve these goals. Since most of the nationally published statistics with regards to technology is classified through the investment and deployment of Information Technology, we can begin to analyze the actual costs and historical trends. For example, Figure 9-12: US Enterprise IT Spending (2002 & 2006), provides us with data showing IT spending for the US Enterprises being close to $225 billion in 2002 and rising to $256 billion by 2006. Furthermore, in many organizations, information technology is the single largest capital expense. In the United States alone, more than 50% of all capital spending goes into information technology, accounting for more than one-third of the growth of the entire U.S. economy.66

<table>
<thead>
<tr>
<th>US Enterprise IT Spending, 2002 &amp; 2006 (In billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002 $225</td>
</tr>
<tr>
<td>2006 $256</td>
</tr>
</tbody>
</table>

*Note: Enterprises have 1,000+ employees
Source: In-Stat/MRJ, March 2003
043379 ©2003 eMarketer, Inc.
www.emarketer.com

**Figure 9-12: US Enterprise IT Spending (2002 & 2006)**

According to CIO Insight’s March 2003 issue, IT spending for 2003 will stay the same for companies having more than 1,000 employees. Contrast this spending, with the fact that IT spending will increase to 35% (from 16%) for companies with less than 1,000 employees.

<table>
<thead>
<tr>
<th>Planned Change in IT Spending According to CIOs in the US, by Business Size, Q2 2003 (as a % of respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1,000 employees                                    35%</td>
</tr>
<tr>
<td>More than 1,000 employees                                    24%</td>
</tr>
</tbody>
</table>

*Increase spending    ■ Decrease spending
Source: CIO Insight, March 2003
043411 ©2003 eMarketer, Inc.
www.emarketer.com

**Figure 9-13: Planned Change in IT Spending**

Comparing worldwide IT spending from 2002 to 2003, there will be a 4.0%-6.2% increase in spending for the coming year. Despite the economic downturn and the internet bubble burst IT spending is still increasing from year to year.

---

9.5.1 Historical Spending for Recruiting

Parallel to IT spending, spending for recruiting is also projected to continue in a positive direction. According to International Data Corporations, May 2002, report the recruiting and staffing services market worldwide will grow from $62.9 billion to $96.0 billion by 2006. This growth expectancy is approximately 5% yearly and inline with the projections reported for the IT industry.

![Recruiting and Staffing Services Market Worldwide, 2001 & 2006 (in billions)](image)

From Figure 9-16: US Employer Spending on Recruitment Sites 2001, we can see that the bulk of the spending for recruiting sites (49%) is less than $10,000 for 2001. While this does not include the costs for the recruiting service sector, it still provides a strong indicator that the market is driven by large volume of companies making reasonably small investments. This further supports our previous observation/discussion of the 'low cost' to enter this new market.

![US Employer Spending on Recruitment Sites, 2001](image)
As with any new and emerging market, businesses need to identify their source of income. During the internet boom, many new companies found themselves developing revenue streams from non-conventional methods. While some of these methods were based on future project earnings and anticipated market explosion, some companies bridged the gap of traditional business with new industry tools. eAdvertising is one successful example of this union. eAdvertising allowed companies to disseminate their company message, brand, products and discounts through animated java scripts, pop-up windows and the simplest form of just displaying a company message within a standard web page. Magically, HTML and JAVA programmers, along with new technology certifications, multiplied exponentially to keep up with the emerging demand.

While this emergence was helpful in deploying the new technology, it came at a cost to the traditional businesses. Traditional advertising started to become displaced by a significantly lower cost and an enormously larger distribution channel. For the recruiting industry, this meant being able to place a recruiting ad online at a significantly lower cost than traditional methods. This is illustrated by a report published by Thomas Weisel Partners in 2002, which showed the comparative cost of recruiting someone online, at $183, versus offline at $1,383. There was an astonishing 86.7% reduction in costs with an enormous increase in the distribution channel.

<table>
<thead>
<tr>
<th>Cost of Recruiting an Employee Online and Offline in the US, 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Online</strong></td>
</tr>
<tr>
<td><strong>Offline</strong></td>
</tr>
</tbody>
</table>

*Source: Thomas Weisel Partners, 2000*

![Figure 9-17: Cost of Recruiting an Employee Online vs. Offline (2000)](image)

This began to only touch the surface of eAdvertising and the cost benefits it had to offer alone or in conjunction with traditional advertising channels.

### 9.5.2 Historical Spending for e-Advertising

eAdvertising became an important aspect of generating business income for the online community. As we previously mentioned, eAdvertising consisted of four major content components. They are: Banners, email, Rich Media and Classified. As reported by the Internet Advertising Bureau, for the year 2000, Banner eAdvertising, consumed the largest percent of the market share with a total penetration rate of 53% to 46% by Q32000. Despite its low percentage of market share, eAdvertising classifieds were the only channel to have increased their position from Q41999 to Q32000. While this increase wasn't significant, it did provide reinforcement for this channel to continue to emerge as a successful media.

<table>
<thead>
<tr>
<th>Breakdown of eAdvertising Expenditure in the US, Q4 1999–Q3 2000 (as a % of total web spending)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ad Format</strong></td>
</tr>
<tr>
<td>Banners</td>
</tr>
<tr>
<td>eMail</td>
</tr>
<tr>
<td>Rich media</td>
</tr>
<tr>
<td>Classifieds</td>
</tr>
</tbody>
</table>

*Source: Internet Advertising Bureau, 2000*

![Figure 9-18: Breakdown of eAdvertising Expenditure Q4199–Q32000 (US)](image)

The Internet Advertising Bureau's report offered some encouragement, however, it's reporting stopped by Q42000. Jupiter Research in 2002 provided a further picture of the spending for this channel from 2001 through a projected spending till 2007. According to the Jupiter Research report, this growth will continue consistently through 2007. Figure 4-8: How Internet Users Worldwide Arrived at Web Sites (2001-2003) graphically summarizes these projections.
For the internet recruiting companies, eAdvertising offered another channel for revenue. Some companies were able to collect revenue through mechanisms such as job postings, resume postings and restricted access to their databases. Others also turned to capitalizing on the eAdvertising revenue stream. However, not all companies used this avenue. For example, Monster.com primarily receives their revenue from two main sources: 1) employers posting job positions to their web site and 2) charging an additional fee for employers to access their resume database. They do not charge for posting resumes, nor do they receive any revenue from eAdvertising. The only types of banners they display are their own.

Conversely, eAdvertising created a new opportunity for companies to monitor and measure adoption or population statistics with regards to eAdvertising. Today, there are approximately 20 different companies providing measurements for these four broad categories.

Amongst these types of firms, the largest expenditures for eAdvertising during 2001 and 2002 were for business propositions and recruiting reaching a 46.7% of the total spending. This was an approximate 30% jump over the next closest category (computers/office equipment and stationary at 15.6%) and surpassing the average spending by almost 39% (as reported by DoubleClicks December 2002 report).

We have provided a summary (Figures 9-20 through 9-22) of these companies, what they measure, how they define what they measure and the projected expenditures for eAdvertising in 2002 as a closing for this chapter.
### Online Ad Spending: What Is Measured? How Is It Measured?

<table>
<thead>
<tr>
<th>Source</th>
<th>What is Measured (ad formats)</th>
<th>How It is Measured (methodology)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams Media Research</td>
<td>No classifieds or e-mail</td>
<td>&quot;Complicated model&quot;; talks with companies that do online advertising</td>
</tr>
<tr>
<td>Ad Zone Research</td>
<td>No e-mail</td>
<td>Uses computer technology to measure ad activity on 4,000 websites. Calculates spending by multiplying the number of ad units by published rate card prices. No attempt is made to factor out bartering or discounting. Does not make projections; only monitors past activity</td>
</tr>
<tr>
<td>CMR</td>
<td>No classifieds or e-mail</td>
<td>Monitors 15,000 URLs. Black box (will not reveal methodology)</td>
</tr>
<tr>
<td>eMarketer</td>
<td>Same as IAB/PwC</td>
<td>Aggregates and analyzes information from all sources. Normalizes and weights data. Develops projections based on the best fit with all the available data. Identify IAB/PwC as the benchmark for historical periods</td>
</tr>
<tr>
<td>Forrester Research</td>
<td>No classifieds or e-mail</td>
<td>Interviews media companies and adjusts their numbers off of 1Q's. Also applies best guesses based on speaking with marketers</td>
</tr>
<tr>
<td>Gartner G2</td>
<td>Same as IAB/PwC</td>
<td>Uses public records (SEC filings) with adjustments; determined in conjunction with data collected from Nielsen/NetRatings, Evant, and interviews with online media and advertisers</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>Same as IAB/PwC</td>
<td>Looks at trends, particularly by tracking revenues from the largest publishers, such as AOL, Yahoo, etc. Not projecting beyond 2002</td>
</tr>
</tbody>
</table>

- **Interactive Advertising**: Banners, Sponsorships, Classifieds, Slotted Fees, Keyword Search, Interstitials, E-mail, Rich Media, Referrals
- **PricewaterhouseCoopers (PwC)**: Confidential mailed survey to Interactive media companies; validated via public records and PwC audit records. Compile data from over 100 companies, including non-public firms (data only shown in aggregate; no incentive to boost).

---

Figure 9-20: Online Ad Spending – What and How Measured – Part I
<table>
<thead>
<tr>
<th>Research Company</th>
<th>Method and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>J.P. Morgan</td>
<td>Same as IAB/PwC</td>
</tr>
<tr>
<td></td>
<td>Uses IAB/PwC for historical purposes</td>
</tr>
<tr>
<td>Jupiter Research</td>
<td>No barter or referral fees</td>
</tr>
<tr>
<td></td>
<td>Historical estimates based on aggregating revenue data from 30</td>
</tr>
<tr>
<td></td>
<td>of the top public online publisher websites and ad networks.</td>
</tr>
<tr>
<td></td>
<td>Extrapolates based on other data from AdRevence and Media Metric. Strips out 10%</td>
</tr>
<tr>
<td></td>
<td>for barter, 2% for referral fees</td>
</tr>
<tr>
<td>Kagan World Media</td>
<td>No rich media</td>
</tr>
<tr>
<td></td>
<td>Historical numbers derived by looking at reported revenues from public</td>
</tr>
<tr>
<td></td>
<td>companies, calculating their market share, then extrapolating to reach a total</td>
</tr>
<tr>
<td>Lehman Brothers</td>
<td>Include everything the top 10 sites publishers include when they report revenues</td>
</tr>
<tr>
<td></td>
<td>in SEC filings</td>
</tr>
<tr>
<td></td>
<td>Examine the top 10 public online publishers’ revenues on the assumption that this</td>
</tr>
<tr>
<td></td>
<td>group accounted for 85% of total dollars in 2000 and 90% in 2001;</td>
</tr>
<tr>
<td></td>
<td>extrapolate to get the remaining dollars</td>
</tr>
<tr>
<td>McCann-Erickson</td>
<td>No classifieds or e-mail</td>
</tr>
<tr>
<td></td>
<td>Extrapolates from US Census data (most recent Census data is 2000). Formulates</td>
</tr>
<tr>
<td></td>
<td>projections by looking at industry trend data, including other media</td>
</tr>
<tr>
<td>Merrill Lynch</td>
<td>Same as IAB/PwC</td>
</tr>
<tr>
<td></td>
<td>Up until mid-2001, was using IAB/PwC data. Now pull the data from themselves</td>
</tr>
<tr>
<td></td>
<td>mostly by reviewing public SEC filings from the major players (who represent “90%”</td>
</tr>
<tr>
<td></td>
<td>of total spending)</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>No barter, cash/barter, e-mail</td>
</tr>
<tr>
<td></td>
<td>Tracks impressions and uses a blend of effective CPMs from public company reports</td>
</tr>
<tr>
<td></td>
<td>Strips out 6% for barter, 1% for cash/barter deals, and 3% for e-mail</td>
</tr>
<tr>
<td>Myers Group</td>
<td>No barter, equity deals, slotting fees, referrals</td>
</tr>
<tr>
<td></td>
<td>Interviews and self-administered questionnaires (mailed), completed by</td>
</tr>
<tr>
<td></td>
<td>advertisers and buying representatives; conducted quarterly. Plus confirming</td>
</tr>
<tr>
<td></td>
<td>interviews with online media companies and public data. Strips out 8% for slot</td>
</tr>
<tr>
<td></td>
<td>ting fees and 2% for referrals</td>
</tr>
<tr>
<td>Solomon Smith Barney</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Black box (will not reveal methodology)</td>
</tr>
<tr>
<td>Veronis Suhler Group</td>
<td>Same as IAB/PwC</td>
</tr>
<tr>
<td></td>
<td>Based on anticipated economic trends; general advertising trends; national</td>
</tr>
<tr>
<td></td>
<td>advertising trends as impacted by the economy, and anticipated consumer use of</td>
</tr>
<tr>
<td></td>
<td>the Internet</td>
</tr>
<tr>
<td>Yankee Group</td>
<td>No e-mail</td>
</tr>
<tr>
<td></td>
<td>Based on a combination of primary consumer usage research, as well as interviews</td>
</tr>
<tr>
<td></td>
<td>with online ad buyers and sellers actively involved in the advertising</td>
</tr>
</tbody>
</table>

Figure 9.21: Online Ad Spending – What and How Measured – Part 2
### Online's Share of Total US Advertising, by Category, Q1 2001-Q1 2002

<table>
<thead>
<tr>
<th>Category</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business prop. and employment recruiting</td>
<td>19.4%</td>
</tr>
<tr>
<td>Computers, office equipment and stationery</td>
<td>15.6%</td>
</tr>
<tr>
<td>Publishing and media</td>
<td>15.5%</td>
</tr>
<tr>
<td>Retail</td>
<td>14.7%</td>
</tr>
<tr>
<td>Business and consumer services</td>
<td>12.3%</td>
</tr>
<tr>
<td>Travel, hotels and resorts</td>
<td>12.0%</td>
</tr>
<tr>
<td>Electronic entertainment equipment and supplies</td>
<td>10.4%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>7.7%</td>
</tr>
<tr>
<td>Insurance and real estate</td>
<td>6.4%</td>
</tr>
<tr>
<td>Entertainment and amusements</td>
<td>5.6%</td>
</tr>
<tr>
<td>Apparel, footwear and accessories</td>
<td>4.5%</td>
</tr>
<tr>
<td>Drugs and remedies</td>
<td>3.2%</td>
</tr>
<tr>
<td>Freight, Industrial and agricultural development</td>
<td>3.0%</td>
</tr>
<tr>
<td>Sporting goods, toys and games</td>
<td>3.0%</td>
</tr>
<tr>
<td>Household equipment and supplies</td>
<td>1.8%</td>
</tr>
<tr>
<td>Toiletries and cosmetics</td>
<td>1.4%</td>
</tr>
<tr>
<td>Foods and food products</td>
<td>1.1%</td>
</tr>
<tr>
<td>Automobiles, auto accessories and equipment</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

**Source:** DoubleClick, December 2002

Figure 9-22: Total US eAdvertising By Category (2001-2002)
10 Measuring the ROI

Most companies tell their managers to treat the company’s money as if it was their own. By stating this, the expectation is that managers will act in the best interest of the company and, in turn, will maximize financial returns while minimizing their expenditures. Therefore, our expectations were that we would find companies defining their recruiting success measures, along with tracking and monitoring their performance against an established baseline or return target. To our surprise, a significant portion of companies do not use any metrics, or were not aware of any metrics being used, to measure their return on their IT or IBS investments.

As previously mentioned, those in the healthcare arena appear to be an exception to these findings. For example, Aetna Healthcare performs various measurements within their human resource organization, including those related to their recruiting efforts. Additionally, they have deployed automated services, integrated back-end systems, and hiring tools which include screening techniques used to profile the online candidates which account for approximately 60% of their new hires. Of this 60%, the company web site accounts for 25% and the remaining 35% arrive via online niche web sites.

Similarly, Interim Healthcare is receiving approximately 35% of their full time professional hires from the online channels.

<table>
<thead>
<tr>
<th>Recruiting Channel</th>
<th>Percent Hired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Web Site</td>
<td>15%</td>
</tr>
<tr>
<td>Third Party Web Site</td>
<td>20%</td>
</tr>
<tr>
<td>Job Fairs</td>
<td>5%</td>
</tr>
<tr>
<td>Referrals</td>
<td>30%</td>
</tr>
<tr>
<td>Agencies</td>
<td>15%</td>
</tr>
<tr>
<td>Publications/Ads</td>
<td>15%</td>
</tr>
</tbody>
</table>

*Table 10-1: Hiring Percentage by Channel (Interim Healthcare)*

Interim Healthcare has an interesting challenge with respect to their business model. Interim Healthcares' business model also includes franchises which provide related healthcare services throughout the United States and South America. Each franchise, in turn, offers a unique experience for hiring and managing their recruiting efforts. Standardization and the use of hiring measurements have allowed Interim Healthcare to reduce their time to hire significantly. Through their Rapid Hire program they have been able to reduce the total time to hire from two weeks down to one to two days.

These are just two examples of how the healthcare industries have utilized metrics to improve their recruiting methods.

In the book, *HR Scorecard: Linking People Strategy and Performance*, the authors conducted a survey of 968 firms asking companies what measurements did they conduct along with describing how they conducted them. Responses for those that perform a specific measurement ranged from 38.2% to 79.4% with many responses on the higher end of the scale. For those that did perform some type of measurement, responses varied between 17.1% to the highest with 48.8%. Surprisingly, only 13.5% (best case) use some form of a formal estimation procedure.
Figure 10-2: What Firms Say They Are Measuring and How

As we previously noted, the 2002 findings from the Net Impact Study were not much different.

Figure 10-3: Lack of Tracking Metrics for IBS Deployment

Despite the Net Impact Study’s focus on Internet Business Solutions, there seems to be an equal, or even greater, concern for any type of information technology investment.

Measuring the return on technology investment has been the Holy Grail for CEOs and chief information officers (CIO) for the past 30 years. Much effort has been expended on trying to quantify the returns in terms of sales growth and cost reduction, from the tens of millions of dollars invested in each new wave of technology, from mainframes to PCs to client/server to enterprise resource planning (ERP) to the Web. Generally, the results have been inconclusive and are often restricted to broad statements about productivity increases being somehow tied to technology investments. This loose causal relationship has been disconcerting too many business leaders.67

Further supporting this poor governance, which has been occurring regarding IT investments, is the following:

Perhaps the complaint we hear most frequently from the executives-most of them CEOs, COOs, CFOs, or other high-ranking officers-is that they haven't realized much business value from the high-priced technology they have installed. Meanwhile, the list of seemingly necessary IT capabilities continues to grow, and IT spending continues to consume an increasing percentage of their budgets. The recurring concern we hear from executives in our courses-is that IT efforts fail to generate the intended business benefits and is often accompanied by some finger-pointing.\(^{68}\)

Since the 1990's there has been a significant amount of increased attention focused on measuring these types of investments. This was mostly the result of major companies losing billions of dollars from their information technology investments which either didn't deliver or where never deployed. Some examples: \(^{69}\)

- In 1987, the California Department of Motor Vehicles (DMV) launched a major project to revitalize their drivers license and registration application process. By 1993, after $45 million dollars had already been spent, the project was cancelled.

- In 1993, the Oregon Department of Motor Vehicles embarked on what was to be a five-year, $50 million project to automate its mostly manual and paper-based operation. The project was justified on the ground that this automation would enable the DMV to downsize its workforce by one-fifth and save over $7.5 million annually. Two years later, the five-year project's completion data crept to 2001 (60% slippage), and the estimated total budget ballooned to $123 million (146% slippage). In response to public outcry, state officials killed the project.

- In early 1993, the London Stock Exchange abandoned the development of its Taurus paperless share settlement system after more than 10 years development effort was wasted. When the project was abandoned, it had cost the City of London over £800 million. Taurus was 11 years late and 13,200 percent (132 times) over budget without any viable solution in sight.

- In 1994, American Airlines settled their lawsuit with Budget Rent-A-Car, Marriott Corp. and Hilton Hotels after the $165 million CONFIRM car rental and hotel reservation system project was dumped.

- Hershey Foods' infamous decision in 1999 to implement several major systems simultaneously, including CRM, ERP, and supply chain management, which ultimately resulted in the company's inability to deliver candy to important customers during the Halloween season.\(^{70}\)


While the good news is that there was an increased awareness into measuring the return on technology investments, there is still difficulty establishing a common standard, or agreement, on how to measure technology related returns. There is no single answer regarding how to measure technology-related ROI and what to include in that assessment. Erik Brynjolfsson, a management professor at MIT's Sloan School of Management who specializes in IT effectiveness says: "My research shows that up to 90% of the costs and benefits of IT Investments are in intangibles."  

Further supporting Erik's assessment is this quote from the Net Impact Study, "it is important to note that while managers agreed that metrics are important, and that they are under increasing pressure to deliver on them, there was little commonality among the metrics organizations used for their technology efforts."  

In lies the challenge for the industry, and hence what will later lead us into a discussion on what type of measurements are being used for IT investments as well as for recruiting technology systems. However, before we dig deeper into what types of measurements are being performed, we will explore the various different categories or portfolios of IT investments.

10.1 Portfolios of IT Investments

In Peter Weill and Marianne Broadbent's book, Leveraging The New Infrastructure: How Market Leaders Capitalize on Information Technology, the authors provide an in depth study on how Information Technology investments are made within companies. Their work entailed analyzing 100 different businesses in 75 firms in 9 different countries.

It appears to be the only book that has tried to quantify and segment the different types of IT investments. According to the authors, Information Technology investments occur to achieve four management objectives/portfolios. These objectives which make up the information technology portfolio are: Infrastructure, Transactional, Informational and strategic. A brief definition of each is as follows:

**Infrastructure** – is delivered as reliable services throughout, standardized and shared by multiple groups.

- Examples are: network services, provisioning, shared databases, and other intranet related applications

**Transactional** – processes and automates the basic, repetitive transactions of the firm.

- Examples: order processing, inventory control, financial general ledger, and other transactional processing.

**Informational** – provides information for managing and controlling the firm. The product of which is a combination of data, information, and knowledge as an input to decision making and control.

- Examples: management control, decision making, planning, communication, TQM, and accounting.

**Strategic** – made to gain competitive advantage or to position the firm in the marketplace.

- Examples: Technologies that utilize a new use of information technology to gain a competitive advantage.

---


Based on the author’s research, approximately 54% of the IT investments made are to meet the infrastructure objective. Second, to that are informational investments which comprise of 20% of the total investments. Both strategic and transactional objectives were 13% of the information technology investments. This distribution is graphically represented in Figure 10-4: Management Objectives for the IT Portfolio.

Additionally, the authors segment each objective into an associated risk portfolio. The highest IT investment risks are those that satisfy the strategic objectives. Due to their high risk, strategic objectives take approximately 2-3 years and often end up having a 50% failure rate. Infrastructure objectives contain the second highest risk opportunity. The lowest risk investment was that of transaction which consequently offered the highest rate of return with a 25%-40% achievement rate. These risk portfolios are summarized in Figure 10-5: Risk-Return Profiles in the IT Portfolio.
10.2 ROI Measurements Used for Information Technology System

This section summarizes some of the metrics which are commonly used today in measuring the return-on-investment for information technology. These metrics can be classified into two distinct categories: Financial Metrics and Operational Metrics.

Appendix 16.5: Methods for Measuring ROI provides a more detailed explanation of these financial methods which includes their definition, strengths and weaknesses. These financial metrics are:

- Balance Scorecard
- Economic Value Added (EVA)
- Internal Rate of Return (IRR)
- Net Present Value (NPV)
- Payback Period

Operational Metrics are a bit more difficult to define. According to Janco Associates Incorporated, there are over 540 objective metrics which exist for measuring the Internet and Information Technology industry (www.e-janco.com). A complete listing and description of these metrics are unfortunately outside the scope of this work.

10.3 ROI Measurements Used In the Staffing Industry

While the late 1990’s and the early 2000’s brought increased benchmarking for some systems like, CRM, ERP and the like, these metrics fell short of measuring and monitoring the return-on-investment for Internet Business Solution investments. In addition, a lasting impression from the previous section would leave the reader in awe over the vast number of different metrics. It is no wonder the industry is having difficulties obtaining the ROI of their investments and hence a general agreement on the methodology for calculating the effectiveness of recruiting activities online.²⁴

Disappointedly, when we were fortunate to find companies measuring the return on their Internet Business Solutions, these policies tended to get lost for their Human Resource technology deployments (i.e. recruiting efforts).

Of all the HR functions, recruiting has one of the largest impacts to the bottom line of a company. For example, if a hotel has a normal turnover rate (25% per year), it only takes two years of bad hiring before 50% of the employees are below par. Conversely, a recently hired “superstar” will produce as much as two times more than an average performer, and the very top superstar performers may produce as much as 10 times more.²⁵

To gain a better insight into what type of metrics were being used for the recruiting industry, we turned to Staffing.org and the book The ROI of Human Capital by Jac Fliz-enz. Jac is considered by many to be the ‘father of human capital benchmarking’. A background for Staffing.org is as follows:

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²⁵ Dr. John Sullivan, HR Metrics: The World Class Way; Kennedy Information, 2003, 32-35
Staffing.org began as a web-based nonprofit organization with a mission to gather, organize and present information that identifies effective staffing practices and performance. Staffing.org has been reviewed and endorsed by over 500 of the country's top HR and recruiting professionals. Staffing.org provides a range of services to its constituencies, including: advocacy for better staffing practices; training seminars on staffing metrics; collection and analysis of performance data for HR practitioners to use to assess their progress; and an annual HR Metrics Summit for thought leaders and practitioners.76

These two sources offer the most comprehensive description and analysis of measurements for recruiting and human capital that we could find.

Within The ROI of Human Capital, the author provides six categories of metrics which can be used for any department that manages human capital. These metrics were the result of a mid 1990's study performed by the Saratoga Institute spanning five years and 1,000 companies. Despite this work being performed in the 1990's the value of its findings and recommendations still hold today and for the future. The six categories of metrics which were identified were: Organizational Effectiveness, Human Resource Structure, Compensation, Benefits, Separations, Training/Development and Staffing.

1. Organizational Effectiveness
   - Revenue Factor: Revenue / Total FTE
   - Expense Factor: Operating Expense / Total FTE
   - Human Capital Value Added: Revenue - (Operating Expense + Total FTE)
   - Human Capital ROI: Revenue / (Operating Expense + Total FTE)

2. Human Resources HR Structure
   - HR Expense Percentage: HR Expense / Total FTE
   - HR FTE Ratio: Total FTE / Total HR FTE
   - HR Investment Factor: HR Expense / Total FTE
   - HR Separation Rate: HR Separations / HR Head Count
   - HR Breakdown: HR FTE by Category / Total HR FTE

3. Compensation
   - Compensation Revenue Percentage: Compensation Cost / Revenue
   - Total Compensation Revenue Percentage: Compensation Cost / Revenue
   - Total Labor Cost Revenue Percentage: Compensation Cost / Other Labor Cost + Revenue
   - Compensation Expense Percentage: Compensation Cost / Operating Expense
   - Total Compensation Expense Percentage: Compensation Cost / Operating Expense
   - Total Labor Cost Expense Percentage: Compensation Cost / Operating Expense

   - Compensation Factor: Compensation Cost / Workforce Head Count
   - Supervisor Compensation Factor: Supervisor Compensation Cost / Supervisor Head Count
   - Supervisory Compensation Factor: Supervisory Compensation Cost / Compensation Cost
   - Executive Compensation Factor: Executive Compensation Cost / Executive Head Count
   - Executive Compensation Percentage: Executive Compensation Cost / Compensation Cost

4. Benefits
   - Benefit Revenue Percentage: Benefit Cost / Revenue
   - Benefit Expense Percentage: Benefit Cost / Operating Expense
   - Benefit Compensation Percentage: Benefit Cost / Compensation Cost
   - Health Care Factor: Medical and Medically Related Benefit Cost / Covered Employees
   - Workers Compensation Factor: Workers Compensation Cost / Workforce Head Count
   - Benefit Cost by Category: Benefit Cost / Category

5. Separations
   - Separation Rate: Voluntary Separations + Involuntary Separations / Head Count
   - Voluntary Separation Rate: Voluntary Separations / Head Count
   - Involuntary Separation Rate: Involuntary Separations / Head Count
   - Voluntary Separations by Length of Service: Voluntary Separations by Length of Service by Category / Voluntary Separations

6. Staffing
   - External Acquisition Rate: External Add Hires + External Replacement Hires / Total Hires
   - Internal Acquisition Rate: Internal Add Hires + Internal Replacement Hires / Total Hires
   - College Acquisition Rate: College Add Hires + College Replacement Hires / Total Hires

   - External Add Rate: External Add Hires + Head Count
   - College Add Rate: College Add Hires + Head Count
   - External Replacement Rate: External Replacement Hires + Head Count
   - College Replacement Rate: College Replacement Hires + Head Count
   - External Cost per Hire: External Hires / External Add Hires
   - Internal Cost per Hire: Internal Hires / Internal Add Hires
   - College Cost per Hire: College Hires / College Add Hires
   - External Cost per Hire Breakdown: External Hires / External Add Hires
   - College Cost per Hire Breakdown: College Hires / College Add Hires
   - External Days to Fill: External Days to Fill + External Hires
   - Internal Days to Fill: Internal Days to Fill + Internal Hires
   - External Time to Start: External Days to Start + External Hires
   - Internal Time to Start: Internal Days to Start + Internal Hires

   - External Hires Offer Acceptance Rate: External Offers Accepted / External Offers Extended
   - College Hires Offer Acceptance Rate: College Offers Accepted / College Offers Extended
   - Sign-on Bonus Percentage: Total Hires Receiving Sign-on Bonus / Total Hires
   - Supervisor Sign-on Bonus Percentage: Supervisor Hires Receiving Sign-on Bonus / Supervisor Hires
   - Executive Sign-on Bonus Percentage: Executive Hires Receiving Sign-on Bonus / Executive Hires
   - Sign-on Bonus Factor: Total Hires Receiving Sign-on Bonus / Total Hires
   - Supervisor Sign-on Bonus Factor: Supervisor Hires Receiving Sign-on Bonus / Supervisor Hires
   - Executive Sign-on Bonus Factor: Executive Hires Receiving Sign-on Bonus / Executive Hires

7. Training and Development
   - Employees Trained: Total Head Count
   - Training Cost Factor: Total Training Cost / Employees Trained
   - Training Cost Percentage: Total Training Cost / Total FTE
   - Training Investment Factor: Total Training Cost / Total FTE
   - Training Staff Ratio: Total FTE / Training Staff FTE
   - Training Hires per Hour: Total Training Cost / Total FTE
   - Internal Staff Training Hours Percentage: Internal Staff Training Hours Provided / Total Training Hours
   - External Staff Training Hours Percentage: External Staff Training Hours Provided / Total Training Hours

Source: ROI of Human Capital

Figure 10-6: Saratoga Institute’s 1999 HR Benchmarks

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For those looking to benchmark their companies’ performance against others in the industry, in different industries, Staffing.org’s Staffing Metrics Report provides an opportunity and guideline to do so. For our work, we obtained the most recent Staffing Metrics Report which was published in 2002.

The 2002 Staffing Metrics Benchmark Report reflects staffing performance data from 1,460 organizations, more than twice the number of participants in 2001 survey. The primary function of the 2002 Staffing Metrics Report is to provide extensive performance data from the full spectrum of American business. Staffing professionals can easily use the results from this report to benchmark their own organization’s performance against others in the industry, their size and their region. Participants provided the following information for the year 2001: 77

- Number of Hires Made
- The Total Compensation Required
- Total Internal Recruiting Costs
- Total External Recruiting Costs
- Total Signing Bonus Costs
- Total Travel Relocation and VISA Costs

Since no other company, to the best of our knowledge, has a more comprehensive collection of metrics and recent trends in this industry, we would like to take the opportunity to highlight some of their findings. A more detailed understanding of this work is left to the reader.

According to Staffing.org 78, the measures used to evaluate online recruiting activities typically included cost-per-hire and the staffing-efficiency-ratio. Cost-Per-Hire was defined to be total-staffing-costs divided by total-number-of-hires and where the staffing-efficiency-ratio was defined to be total-staffing-costs divided by total-compensation-recruited. Using cost-per-hire does not accommodate for the following problem areas: geographic differences, industry differences, function differences and differences in job levels. Where as the staffing-efficiency-ratio attempts to take into consideration these differences.

Based upon Staffing.org’s 2002 Staffing Survey consisting of 1,460 companies who hired 777,390 employees, the cost per-hire was $3,997 having a staffing-efficiency of 11.63%.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Hires</th>
<th>Total Compensation Recruited</th>
<th>Internal Recruiting Expenses</th>
<th>External Recruiting Expenses</th>
<th>Cost per Hire</th>
<th>Staffing Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,460</td>
<td>777,390</td>
<td>$26,705,863,625</td>
<td>$1,869,552,113</td>
<td>$1,238,337,675</td>
<td>$3,997</td>
<td>11.63%</td>
</tr>
</tbody>
</table>

Source: 2002 Staffing Metrics Benchmark

**Figure 10-7: Recruiting Expenses, Cost-per-hire and Staffing Efficiency**

Both the cost-per-hire and staffing-efficiency appear to have improved from the previous years of 2000 and 2001 where it was $6,342 and $4,522 respectively.

<table>
<thead>
<tr>
<th>Responses</th>
<th>Total Internal Recruiting Costs</th>
<th>Total External Recruiting Costs</th>
<th>Total Recruiting Costs</th>
<th>No. of Hires</th>
<th>Cost per Hire</th>
<th>Staffing Efficiency Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>426</td>
<td>$193,625,000</td>
<td>$135,190,000</td>
<td>$6,28,170,000</td>
<td>99,159</td>
<td>$6,342</td>
<td>16.04%</td>
</tr>
<tr>
<td>679</td>
<td>$2,295,390,744</td>
<td>$1,797,390,741</td>
<td>$4,992,781,198</td>
<td>935,001</td>
<td>$4,522</td>
<td>13.58%</td>
</tr>
<tr>
<td>1460</td>
<td>$1,869,552,113</td>
<td>$1,238,337,675</td>
<td>$3,107,899,788</td>
<td>777,390</td>
<td>$3,997</td>
<td>11.63%</td>
</tr>
</tbody>
</table>

Source: 2002 Staffing Metrics Benchmark

**Figure 10-8: Total Recruiting Expenses, Cost-per-hire and Staffing Efficiency**


As for the staffing-efficiency the 11.63% in 2002 was an improvement from 13.58% and 16.03% in the years 2001 and 2000 respectively. It is important to note that the staffing efficiency, expressed as a percent, is a measure of the cost associated with bringing in compensation. Therefore, a staffing efficiency of 11.63% means it costs just over 11 cents to bring in a dollar’s worth of compensation, or $11,630 to hire someone who makes $100,000 a year.\textsuperscript{79}

\textsuperscript{79} http://www.staffing.org/reports.html
Figure 10-10: Staffing Efficiency Comparison (2000-2002)

Going back to 1999 and with Recruiting/ iLogos Research’s help we can see that in 1999 the most expensive channel used for recruiting efforts was the use of Head Hunters where the cost-per-hire was $12,000 and conversely the recruiting efforts through the internet were $1,000. Therefore, with the increase in the internet recruiting channels available from 1999 through today, it would appear that the reduced cost-per-hire costs may have been the result of decreased head-hunter participation and/or more internet recruiting.

![Cost Per Hire Per Channel](image)

Figure 10-11: Cost Per Hire per Channel

Drilling down deeper within the 2002 Staffing Survey, we can see that of the 16 different industries, technology had by far the highest cost-per-hire figures for all three years except 2001 where it was surpassed by Healthcare.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Participants</th>
<th>Hires</th>
<th>Total Compensation Recruited</th>
<th>Internal Recruiting Expense</th>
<th>External Recruiting Expense</th>
<th>Cost-per-Hire</th>
<th>Staffing Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>44</td>
<td>23</td>
<td>$6,937,600</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>25</td>
<td>12</td>
<td>$300,000</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>Wholesale/ Retail</td>
<td>107</td>
<td>49</td>
<td>$1,057,000</td>
<td>$173,750</td>
<td>16.3%</td>
<td>112.6%</td>
<td></td>
</tr>
<tr>
<td>Finance</td>
<td>188</td>
<td>57</td>
<td>$3,129,000</td>
<td>$23,750</td>
<td>2.2%</td>
<td>109.3%</td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td>56</td>
<td>13</td>
<td>$208,000</td>
<td>$173,750</td>
<td>16.3%</td>
<td>112.6%</td>
<td></td>
</tr>
<tr>
<td>Services/ Profits</td>
<td>327</td>
<td>157</td>
<td>$4,357,600</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>Services/ Nonprofit</td>
<td>144</td>
<td>44</td>
<td>$300,000</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>Healthcare</td>
<td>218</td>
<td>90</td>
<td>$3,600,000</td>
<td>$173,750</td>
<td>16.3%</td>
<td>112.6%</td>
<td></td>
</tr>
<tr>
<td>Real Estate</td>
<td>45</td>
<td>23</td>
<td>$996,000</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>65</td>
<td>47</td>
<td>$300,000</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>35</td>
<td>25</td>
<td>$300,000</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>Cost/ Ring</td>
<td>49</td>
<td>44</td>
<td>$1,906,000</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>27</td>
<td>27</td>
<td>$1,906,000</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>Newspapers</td>
<td>11</td>
<td>9</td>
<td>$122,000</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>High Tech</td>
<td>107</td>
<td>97</td>
<td>$683,750</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>2</td>
<td>1</td>
<td>$248,000</td>
<td>$232,750</td>
<td>29.7%</td>
<td>124.9%</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,560</td>
<td>1,160</td>
<td>$26,765,000</td>
<td>$1,155,113</td>
<td>4.5%</td>
<td>109.5%</td>
<td></td>
</tr>
</tbody>
</table>

* Source: 2002 Staffing Metrics Benchmark

- Variations in Staffing Efficiency Ratios across industries were much smaller in 2002 (6.7% - 14.4%) than a similar range in 2001 (6.8% - 21.9%).
- There were more firms participating in all industries in 2002 than in 2001.
- High-tech organizations show the greatest Cost-per-Hire, but their efficiency in acquiring talent is well below the range of all industries, suggesting very efficient staffing operations in the high technology sector. This result provides a clear example of why Staffing Efficiency is a better metric than Cost-per-Hire. Though high-tech organizations had the highest Cost-per-Hire, their efficiency in acquiring talent was lower than one point above average and a full 12 points lower than the least efficient industry (Education).
- Staffing efficiency is known from its constituents that more organizations are beginning to measure efficiency performance, and that the simple act of measuring improves performance. This improvement is reflected in the improved efficiencies in 2002 over 2001.

Figure 10-12: Total Recruiting Expenses, Cost-per-hire and Staffing Efficiency (by Industry)
Additionally, in 1999 the High Tech industry had the highest staffing-efficiency percentage in 2000. In 2001, High Tech had the fourth largest staffing-efficiency where it was surpassed by Finance, Services and HealthCare (again the highest). By 2002, Education, Whole Sale/Retail, and Insurance obtained the highest staffing-efficiency ratio.
Despite our concentration on company and industries, the reader may find similar statistics by region and company size if further regression analysis is desired.

Later we will see what types of metrics the industry is leading towards to improve their reporting efficiency. However, there appears to be several obstacles which need to be addressed for these improved methods to be used more diligently. They are:80

- **Lack of Tools** – Recruiting professionals do not have and are unable to find data collection tools for the data required for these metrics. HRIS and staffing systems do not provide the data necessary to calculate these metrics. In short, staffing and recruiting professionals are not getting what they need to adequately assess their performance.

- **Lack of Time** – Shrinking recruiting workforces must content with the increasing hiring demands, in addition to the deluge of resumes from corporate career websites and job boards.

- **Lack of Priority** – Management is most interested in financial performance of recruiting. Assessment efforts are generally prioritized to address cost-per-hire and staffing efficiency ratio; and not the other three core staffing performance metrics.

- **Motivation to measure remains high** – despite the low rate of assessment of new hire quality and customer satisfaction, the interest in these metrics remains high as reported to Staffing.org by recruiting professionals. The factors described above all contribute to the low rate of assessment.

If the company has an excellent recruiting function, it will increase the total market value of the firm by over 10%. Think about it. The market value (the $ value of all the stock of a company) will increase by a dramatic 120% simply as a result of great recruitment. That’s a WOW in any book! Recruiting has the highest impact of any HR function on the planet. (By the way, firms with strong general training and 360 degree feedback programs actually reduced the market value of their firms by nearly 10%, so if you are in these areas it’s time to rethink what you do).81

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11 Recruiting Perspectives from 2003

The results achieved through the 2002 Staffing Metrics Benchmark Report, by Staffing.org, were an excellent analysis and historical perspective on the ROI of the recruiting industry. To further assist with our work we distributed a short survey used to investigate several additional factors.

With the assistance of AfterCollege.com, we distributed an online survey to 800 companies asking for their input regarding such areas as:

- Percentage of candidates from the various recruiting channels
- Percentage of hires from the various recruiting channels
- Quality of candidates hired from online recruiting and traditional recruiting methods
- Cost Per Hire from online recruiting and traditional recruiting methods
- Approximate budget allocation for recruiting efforts
- Approximate recruiting budget allocation for the various channels
- How was ROI measured for their recruiting efforts
- Percentage of ad cost for online and traditional recruiting methods
- What percentage of the companies recruiting efforts were college related

Our intention was to keep the survey short and concentrate on the basics versus complicating the information flow with complex models. We choose a simple perspective because of the data found in the previous sections which indicated that measuring the ROI of the recruiting industry is still in its infancy stages.

Additionally, we provided a very limited turn-around deadline to prevent companies from reverse engineering these measurements and the possibility of making their company look like they were ahead of other companies which may not be measuring their ROI. Our assumption was that the questions were simple enough that, if the ROI information was being collected, it shouldn’t take but ten or fifteen minutes (worst case) to complete the online survey. The internet was used for distributing the survey due to its easy of use, quicker result distribution and automated data collection methods.

While we recognize that there are a lot of areas which could be improved within our survey, the results should be used as one of many sources to guide the reader through understanding the trends found within the industry.

A final note should be made with respect to the clientele which were surveyed. Many of these 800 companies used AfterCollege.com to identify potential college graduate candidates for positions within their companies. Therefore, the candidate experience, these companies were looking for was minimal, which may reflect a different trend than those online organizations specializing in more experienced or seasoned candidates.

The survey, found in Figure 11-1: 2003 ROI Survey, was made available on April 9, 2003 and survey collection was terminated on May 6, 2003. During those 28 days, we received responses from 52 companies which was an approximate 6.5% response rate. While 6.5% doesn’t appear to be a large number, we believe it is in line with expected survey response rates.

Following the survey is a brief overview of the responses received from the survey. A final note for the reader, due to the simplicity of the survey, we will not attempt to hypothesize on the reasons why different types of responses were received. However, we will highlight some of the trending experienced which may inspire others to pursue further a more comprehensive data collection vehicle.
1. % of resumes received via the various channels:
   - % Online Recruiting from company web site
   - % Online Recruiting from 3rd party web sites
   - % Job Fairs
   - % Referral
   - Staffing Agencies
   - % Publication Ads
   **100% TOTAL**

2. % of hires from the various channels:
   - % Online Recruiting from company web site
   - % Online Recruiting from 3rd party web sites
   - % Job Fairs
   - % Referral
   - % Staffing Agencies
   - % Publication Ads
   **100% TOTAL**

3. What is the estimated quality (Good, Fair, Poor) of hire for:
   - Online Recruiting
   - Traditional Recruiting

4. What is the estimated cost per hire for:
   - Online Recruiting
   - Traditional Recruiting

5. Approximate budget allocation for recruiting efforts?

6. Approximate recruiting budget allocation for the various channels
   - % Online Recruiting: company web site
   - % Online Recruiting: 3rd party web sites
   - % Job Fairs
   - % Referral
   - % Staffing Agencies
   - % Publication Ads

7. How is ROI measured for the various recruiting channels?
   - Not measured
   - Payback Period
   - Net Present Value
   - Internal Rate of Return
   - Balanced Scorecard
   - Economic Value Added
   - Other (please specific)

8. % of ad cost for online vs. publication ads
   - % Online vs.
   - % Publication ads

9. What percentage of your recruiting is college-related?
   - % College recruiting

**Figure 11-1: 2003 ROI Survey**
Question 1: What is the percent of resumes received via the various recruiting channels?

Of the 52 survey respondents, only 2 respondents (approx. 3.8%) didn't complete this question. Approximately 56.8% of the resumes received arrived via the online channel with the majority (36.2%) coming from non corporate web sites. Referrals accounted for 20.4% of the candidate flow and were second to the non corporate web site channel.

The lowest channel came from the staffing agencies comprising of only 5.1% of the candidate flow. We suspect that this may due to the type of candidates being targeted. More experienced professionals tend to have a higher penetration within the staffing agencies.

<table>
<thead>
<tr>
<th>Channel</th>
<th>Average (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Web Sites</td>
<td>36.2</td>
</tr>
<tr>
<td>Referrals</td>
<td>20.4</td>
</tr>
<tr>
<td>Corporate Web Sites</td>
<td>19.0</td>
</tr>
<tr>
<td>Publications</td>
<td>9.9</td>
</tr>
<tr>
<td>Job Fairs</td>
<td>9.5</td>
</tr>
<tr>
<td>Staffing Agency</td>
<td>5.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 11-2: Channel Averages for Resumes Received

Average % of resumes received via the various channels

Figure 11-3: Q1-% of resumes received via the various channels
Question 2: What is the percent of hires from the various recruiting channels?

Of the 52 survey respondents, only 4 respondents (approx. 7.7%) didn’t complete this question. Approximately 33.8% of the new hires arrived via referrals. Non corporate web sites were next achieving a 27.3% hiring success. Total online hiring (including both corporate and non corporate web sites) accounted for 40% of the hiring.

The lowest channel came from the job fairs comprising of 7% of the new hires. Again, we suspect this may due to the type of candidates being targeted and their minimal work experience.

Comparing these results with question 1, we see that the referral channel offers an excellent return on investment. This channel consisted of 20.4% of the resume volume and produced 33.8% of the new hires. Contrast this with the online channel (eRecruiting) which delivered 56.8% of the resumes, but only delivered 40% of the new hires.

<table>
<thead>
<tr>
<th>Channel</th>
<th>Average (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referrals</td>
<td>33.8</td>
</tr>
<tr>
<td>Other Web Sites</td>
<td>27.3</td>
</tr>
<tr>
<td>Corporate Web Sites</td>
<td>12.8</td>
</tr>
<tr>
<td>Publications</td>
<td>10.4</td>
</tr>
<tr>
<td>Staffing Agency</td>
<td>8.7</td>
</tr>
<tr>
<td>Job Fairs</td>
<td>7.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 11-4: Channel Averages for new hires

![Average % of hires received via the various channels](image)

Figure 11-5: Q2-% of hires from the various channels
**Question 3: What is the estimated quality of hire from the recruiting channels?**

This question achieved a 100% response from the 52 respondents. Overall, the traditional channels received the highest quality rating with 59.6% of the respondents ranking the quality from this channel as 'good'. Online recruiting received the second highest rating with 14% of the respondents rating the quality of this channel as 'good'.

Interestingly, very few of the respondents indicated that the traditional recruiting channel was poor (3.8% of the respondents). While the online channel produced a more uniform distribution with 30.8% of the respondents feeling the quality of hire from this channel was 'fair' and 15.4% indicating the quality was 'poor'.

An interesting observation from this survey question is that the quality of hire was relatively favorable for the online channel; while the quality of candidates (as we will see in Section 12.3.8 - Significant Lower Quality Control / Pre-Screening) from this channel is less than desirable when compared to other more traditional channels.

<table>
<thead>
<tr>
<th></th>
<th>Online</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>28</td>
<td>31</td>
</tr>
<tr>
<td>Fair</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>Poor</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>52</td>
<td>52</td>
</tr>
</tbody>
</table>

Table 11-6: Channel Averages for new hires

![Graph showing quality of hire for online and traditional channels](image-url)

**Figure 11-7: Q3-What is the estimated quality (Good, Fair, Poor) of the new hire from the channels?**
Question 4 – Part 1: What is the estimated cost per hire (in $) for online recruiting?

Of the 52 survey respondents, 19 respondents (approx. 36.5%) didn't complete the online cost-per-hire portion of this question. Approximately 24.2% of those that respondent had a cost-per-hire around $500 when using the online recruiting channel. The average cost-per-hire for this channel was $1,817.7.

Cost-per-hire measurements varied across the respondents. The lowest cost-per-hire cost was $0 and the highest cost-per-hire for the online channel was $20,000.

Several reasons may account for this diversity in responses. First, cost-per-hire may be calculated differently for the participants. Second, there may exist a varying degree of qualifications which may take more or less time to hire specific candidates. Third, candidate positions may have had a varying degree of wages based upon skills and/or geographical locations. Many of these differences will be discussed in a future chapter.

An interesting observation with respect to the results from this question is that when the cost-per-hire was low (less than or equal to $500) the hiring rate was high (greater than 60%). As the cost-per-hire rose, actual success of hiring decreased. Additionally, some organizations that experienced a zero cost-per-hire were successful in hiring from this channel, while others were not.

![Online - Cost Per Hire vs. % Hire](image)

*Figure 11-8: Q4-What is the estimated cost per hire ($) for online recruiting?*
Of the 52 survey respondents, 21 respondents (approx. 40.4%) didn’t complete the traditional cost-per-hire portion of this question. Approximately 16.1% of those that responded had a cost-per-hire around $500 when using the traditional recruiting channels. The average cost-per-hire for this channel was $3,466.1.

Cost-per-hire measurements varied across the respondents. The lowest cost-per-hire cost was $0 and the highest cost-per-hire for the traditional channel was $20,000. Approximately 32.2% had a cost-per-hire in excess of $5,000.

As previously mentioned the cost-per-hire measurement is prone to a diversity of cost ranges which will be discussed in a future chapter.

Overall, the online recruiting channels achieved a better average cost-per-hire return, when compared to the traditional recruiting channels, by almost 52%. However, the traditional channels achieved a greater success of hiring than the online channel. Additionally, there didn’t appear to be any correlation between the cost-per-hire amounts and hiring success.

![Cost Per Hire - Online](Image)

**Figure 11-9: Q4-What is the estimated cost per hire ($) for traditional recruiting?**
Question 5: What is the approximate budget allocation (in $) for your companies recruiting efforts?

Of the 52 survey respondents, 6 respondents (approx. 11.5%) didn’t complete this question. Of those that did respond, 84.8% indicated their recruiting budget was less than $100,000. This low budget allocation may be an indication of the type of candidates being recruited and/or the candidates minimal work experience. One might expect the budget to be higher for more experienced candidates; especially when considering the length of time required when obtaining a more seasoned professional.

The highest budget allocation (for 4.3% of the respondents) was within the $1 million to $10 million range. While there isn’t a clear reason why this was the case, one might suspect that the higher budget allocation may have been a characteristic of larger companies. Obviously, a larger recruiting budget would imply a larger revenue stream.

![Figure 11-10: Q5-Approximate budget allocation ($) for recruiting efforts?](image-url)
Question 6 - Part 1: What is the approximate percent of your company’s recruiting budget allocated for the corporate web site channel?

Of the 52 survey respondents, 11 respondents or 21.1% didn’t provide a response to this question. Of the remaining 41 respondents, 34.1% (14 respondents) allocated 0% of their budget for the corporate web site channel. Most likely they may have been leveraging off of the companies existing brand and/or already deployed web site.

Only 1 respondent (1.9%) allocated 100% of their budget for the corporate web site channel.

The average percent budget allocation (of those that responded) for the corporate web site recruiting channel was 15.9% achieving a 12.8% hiring success.

![Corporate Web Site Channel - % Recruiting Budget & % Hire](image)

Figure 11-11: Q6-Approx. % recruiting budget allocation for the Corporate Web Site channel?
Question 6 – Part 2: What is the approximate percent of your company's recruiting budget allocated for the other online channels (besides the corporate web site channel)?

Approximately 19.5% (8 of the 41 respondents) allocated 0% of their budget for the non-corporate online recruiting channel.

No respondents allocated 100% of their company's recruiting budget for the non-corporate online channel. The highest budget allocation for this channel was 95%.

The average percent budget allocation (of those that responded) for the non-corporate web site recruiting channel was 27% achieving a 27.3% hiring success. Investment and return seem to be evenly distributed for this channel.

Average budget allocation for the online channels (corporate and non-corporate recruiting) totaled 42.9%.

Other Web Site Channel = % Recruiting Budget & % Hire
(Negative % = No Response)

Figure 11-12: Q6-Approx. % recruiting budget allocation for the non-corporate Web Site channel?
Question 6 – Part 3: What is the approximate percent of your company’s recruiting budget allocated for the job fair channel?

Approximately 31.7% (13 of the 41 respondents) allocated 0% of their budget for the job fair channel.

No respondents allocated 100% of their company’s recruiting budget for this channel. The highest budget allocation for this channel was 80%.

The average percent allocation (of those that responded) for the job fair channel was 13.2% - achieving a 7% hiring success.

![Job Fair Channel - % Recruiting Budget & % Hire](image)

Figure 11-13: Q6 - Approx. % recruiting budget allocation for the Job Fair channel?
Question 6 - Part 4: What is the approximate percent of your company's recruiting budget allocated for the referral channel?

Approximately 43.9% (18 of the 41 respondents) allocated 0% of their budget for the referral channel.

No respondents allocated 100% of their company's recruiting budget for this channel. The highest budget allocation for this channel was 70% with the majority of respondents only allocating 20% or less of their budget for this channel.

The average percent allocation (of those that responded) for the referral channel was 9.3% achieving a 33.8% (the highest) hiring success.

Referral Channel - % Recruiting Budget & % Hire
(Negative % = No Response)

Figure 11-14: Q6-Approx. % recruiting budget allocation for the Referral channel?
Question 6 – Part 5: What is the approximate percent of your company’s recruiting budget allocated for the staffing agency channel?

Approximately 46.3% (19 of the 41 respondents) allocated 0% of their budget for the staffing agency channel.

No respondents allocated 100% of their company’s recruiting budget for this channel. The highest budget allocation for this channel was 80%.

The average percent allocation (of those that responded) for the staffing agency channel was 16.9% achieving an 8.7% hiring success.

Figure 11-15: Q6-Approx. % recruiting budget allocation for the Staffing Agency channel?
Question 6 – Part 6: What is the approximate percent of your company’s recruiting budget allocated for the publications channel?

Approximately 41.5% (17 of the 41 respondents) allocated 0% of their budget for the publication ad channel.

No respondents allocated 100% of their company’s recruiting budget for this channel. The highest budget allocation for this channel was 80% - achieved by 9.7% of the respondents.

The average percent allocation (of those that responded) for the publications channel was 16.8% - achieving a 10.4% hiring success.

Figure 11-16: Q6-Apex. % recruiting budget allocation for the Publications channel?
Question 7: How is ROI measured for the various recruiting channels used by your company?

Neither surprising, nor inconsistent with our research, are the results from this question. Of the 50 respondents (3.8% or 2 respondents didn’t complete this question); approximately 72% of the respondents are not using any form of an ROI measurement for their recruiting efforts. For those that were using a ROI method, 12% of the respondents use the Payback Period methodology.

Multiple ROI methods (no more than 2 methods) were used by 3 of the respondents (6%).

Additional analysis regarding ROI measurements will be discussed in future chapters.

Figure 11-17: Q7-How is ROI measured for the various recruiting channels?
Question 8: What is your company’s percentage of ad costs for online vs. publication ads?

Of the 52 survey respondents, 30.8% didn’t complete this question. An additional 5.6% (2 respondents) allocated 0% of their budget for either online or publication ads.

The largest allocation of ad costs for the online ads was 100% which occurred 16.7% (6 respondents) of the time. The largest allocation of ad costs for the publication ads was 100% which occurred for 8.3% (3 respondents) of the time.

The average percent allocation (of those that responded) for the online ad costs was 42.4%; compared to the average percent allocation for publication ads which was 45.6%.

<table>
<thead>
<tr>
<th>Ad Type</th>
<th>Avrg (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online</td>
<td>42.4</td>
</tr>
<tr>
<td>Publication</td>
<td>45.6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>88.0</td>
</tr>
</tbody>
</table>

Table 11-18: Average % of Ad Costs

% of Ad Cost for Online vs. Publication Ads  
(Negative % = No Response)

Figure 11-19: Q8-% of ad cost for online vs. publication ads
Question 9: What percentage of your company's recruiting efforts is dedicated for college recruiting?

Of the 52 survey respondents, 5.8% (3 respondents) didn't respond to this question. An additional 5.8% indicated that 0% of their recruiting was college related.

The highest percentage of a company's effort dedicated to college recruiting was 100% which was achieved by 5.8% of the respondents. The average percent of recruiting dedicated to college recruiting was 40.2%.

Figure 11-20: Q9-% of recruiting which is college related
11.1 Further Statistical Analysis from the 2003 Recruiting Perspectives

Now that we have had a chance to examine the results from our brief survey, we would like to deepen our understanding through a more comprehensive statistical analysis of two questions in particular. While we recognize that our sample size was not very large, nor were our data points broad enough for a pure multivariable regression model, we believe that the following statistical analysis will provide the necessary guidance to improve a company's recruiting activities. Additionally, this analysis should provide the foundations for those that wish to examine this topic further.

To better understand the outcome of our results we have chosen to analyze the following statistics:

- Mean
- Standard Error
- Median
- Mode
- Standard Deviation
- Kurtosis
- Skewness
- Range
- Minimum
- Sum
- Count
- Largest
- Smallest
- Confidence Interval (95%)

Within the appendix, chapter 17 Statistical Analysis – Definitions, provides a brief explanation for each of the fourteen statistical methods listed above.

From our survey, the two questions we felt offered the most return on a company’s investment were those that pertained to the total number of resumes received from each channel and the total number of hires that occurred from each channel. Therefore, we have concentrated our statistical analysis on these two questions.

Concluding this section is a summary of the survey data collected. This table has been included for the reader’s enjoyment in Table 11-23: Data Collected From Survey Questions.
11.2 Statistical Analysis: Channels from which resumes were received

Table 11-21: Statistical Analysis for Resume Flow (by channels), summarizes the fourteen statistical methods chosen with respect to Question #1: The % of resumes received via the various channels.

From this table, we can see that the channel with the highest mean was the Other Web Site (non corporate web site) channel with a value of 36.22%. Likewise, this channel had the highest median (30%) and with the largest sample variance of 869.11. Similarly, the highest confidence level (95%) was obtained through this channel with an 8.38% confidence.

Second to the Other Web Site channel for receiving resumes was the Corporate Web Site channel with a mean value of 19.0%. This channel also had the second highest median value, along with the Referral channel, obtaining a median of 15.0%. However, the standard deviation for the Corporate Web Site channel was 20.24%, just beating out the standard deviation for referrals which had a standard deviation of 19.66%. Additionally, the Corporate Web Site channel had a 5.75% (again the second highest) confidence level (95.0%) – making this the second best channel for receiving resumes.

Through our statistical results we were then able to identify the Referral channel as being the third best channel for receiving resumes. Besides the statistics already mentioned, this channel had a 5.59% confidence level (95.0%) with the third best sample variance of 386.49.

Based upon the fourteen statistics collected, we can conclude that our initially published results (previous sections) were correct and we will proceed to identify the three best channels for hiring candidates.
### Table 11-21: Statistical Analysis for Resume Flow (by channels)

<table>
<thead>
<tr>
<th>Resumes - Corporate Web Site</th>
<th>Resumes - Other Web Sites</th>
<th>Resumes Job Fairs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>19.00</td>
<td>36.22</td>
</tr>
<tr>
<td><strong>Standard Error</strong></td>
<td>2.86</td>
<td>4.17</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>15.00</td>
<td>30.00</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Standard Deviation</strong></td>
<td>20.24</td>
<td>29.46</td>
</tr>
<tr>
<td><strong>Sample Variance</strong></td>
<td>409.56</td>
<td>869.11</td>
</tr>
<tr>
<td><strong>Kurtosis</strong></td>
<td>5.25</td>
<td>-1.00</td>
</tr>
<tr>
<td><strong>Skewness</strong></td>
<td>1.93</td>
<td>0.48</td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>98.00</td>
<td>95.00</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>98.00</td>
<td>95.00</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td>950.00</td>
<td>1811.00</td>
</tr>
<tr>
<td><strong>Count</strong></td>
<td>50.00</td>
<td>50.00</td>
</tr>
<tr>
<td><strong>Largest(1)</strong></td>
<td>98.00</td>
<td>95.00</td>
</tr>
<tr>
<td><strong>Smallest(1)</strong></td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Confidence Level(95.0%)</strong></td>
<td>5.75</td>
<td>8.38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resumes - Referrals</th>
<th>Resumes - Staffing Agencies</th>
<th>Resumes - Publication Ads</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>20.38</td>
<td>5.06</td>
</tr>
<tr>
<td><strong>Standard Error</strong></td>
<td>2.78</td>
<td>1.25</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>15.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>5.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Standard Deviation</strong></td>
<td>19.66</td>
<td>8.64</td>
</tr>
<tr>
<td><strong>Sample Variance</strong></td>
<td>386.49</td>
<td>70.10</td>
</tr>
<tr>
<td><strong>Kurtosis</strong></td>
<td>4.99</td>
<td>2.67</td>
</tr>
<tr>
<td><strong>Skewness</strong></td>
<td>1.91</td>
<td>1.93</td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>100.00</td>
<td>30.00</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>100.00</td>
<td>30.00</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td>1019.00</td>
<td>253.00</td>
</tr>
<tr>
<td><strong>Count</strong></td>
<td>50.00</td>
<td>50.00</td>
</tr>
<tr>
<td><strong>Largest(1)</strong></td>
<td>100.00</td>
<td>30.00</td>
</tr>
<tr>
<td><strong>Smallest(1)</strong></td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Confidence Level(95.0%)</strong></td>
<td>5.59</td>
<td>2.51</td>
</tr>
</tbody>
</table>
11.3 Statistical Analysis: Channels from which candidates were hired

Table 11-21: Statistical Analysis for Resume Flow (by channels), summarizes the fourteen statistical methods chosen with respect to Question #2: The % of hires from the various channels.

From this table, we can see that the channel with the highest mean was the Referral channel with a value of 33.77%. Likewise, this channel had the highest median (25%) and with the largest sample variance of 932.48. Similarly, the confidence level (95%) was obtained through this channel with an 8.87% confidence. The standard deviation for this channel was also the best achieving a 30.54% deviation.

Second to the Referral Channel for hiring was the non-corporate web site channel (Other Web Sites) with a mean value of 27.27%. This channel also had the second highest median value with a median of 20.0%. Both the standard deviation (29.99%) and sample variance (899.31) were also the second best – producing an 8.71% confidence level (95.0%).

While the best and second best channels for hiring were easy to identify, a bit more analysis was needed to identify the third and subsequent performers. Without our statistical data points we may have been mislead into identifying a different third and fourth best performers for hiring candidates.

If we were to just look at the mean, our third best performer for hiring candidates would have been the Corporate Web Site channel achieving a mean with 12.79%. The next, or fourth, best performing channel would have been the Publication Ads channel with a mean of 10.40%. However, further analysis shows that our initial observation would have been incorrect.

While the mean was useful, we also needed to consider the standard deviation, sample variance and confidence level (95%) for these two channels. After looking at these additional data points, we see that the third best performing channel is the Publication Ads channel with the third best performing standard deviation of 19.31%, and sample variance of 372.93, and finally the third best confidence level (95%) with a 5.61%.

Comparing these results with Corporate Web Site channel, whose results are as follows: standard deviation of 16.33%, sample variance of 266.64 and confidence level (95%) with 4.74%, we can conclude that the publication ads channel out performs the corporate web site channel for hiring.
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Error</th>
<th>Median</th>
<th>Mode</th>
<th>Standard Deviation</th>
<th>Sample Variance</th>
<th>Kurtosis</th>
<th>Skewness</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Sum</th>
<th>Count</th>
<th>Largest(1)</th>
<th>Smallest(1)</th>
<th>Confidence Level(95.0%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiring - Corporate Web Site</td>
<td>12.79</td>
<td>2.36</td>
<td>10.00</td>
<td>0.00</td>
<td>16.33</td>
<td>266.64</td>
<td>6.36</td>
<td>2.30</td>
<td>80.00</td>
<td>0.00</td>
<td>80.00</td>
<td>614.00</td>
<td>48.00</td>
<td>80.00</td>
<td>0.00</td>
<td>4.74</td>
</tr>
<tr>
<td>Hiring - Other Web Sites</td>
<td>27.27</td>
<td>4.33</td>
<td>20.00</td>
<td>0.00</td>
<td>29.99</td>
<td>899.31</td>
<td>0.22</td>
<td>1.18</td>
<td>100.00</td>
<td>0.00</td>
<td>100.00</td>
<td>1303.00</td>
<td>48.00</td>
<td>100.00</td>
<td>0.00</td>
<td>8.71</td>
</tr>
<tr>
<td>Hiring Job Fairs</td>
<td>7.04</td>
<td>2.57</td>
<td>0.00</td>
<td>0.00</td>
<td>17.83</td>
<td>317.96</td>
<td>18.52</td>
<td>4.16</td>
<td>100.00</td>
<td>0.00</td>
<td>100.00</td>
<td>338.00</td>
<td>48.00</td>
<td>100.00</td>
<td>0.00</td>
<td>5.18</td>
</tr>
<tr>
<td>Hiring Referrals</td>
<td>33.77</td>
<td>4.41</td>
<td>25.00</td>
<td>5.00</td>
<td>30.54</td>
<td>932.48</td>
<td>-0.96</td>
<td>0.57</td>
<td>100.00</td>
<td>0.00</td>
<td>100.00</td>
<td>1621.00</td>
<td>48.00</td>
<td>100.00</td>
<td>65.00</td>
<td>8.87</td>
</tr>
<tr>
<td>Hiring Staffing Agencies</td>
<td>8.73</td>
<td>2.22</td>
<td>0.00</td>
<td>0.00</td>
<td>15.41</td>
<td>237.52</td>
<td>4.23</td>
<td>2.14</td>
<td>65.00</td>
<td>0.00</td>
<td>65.00</td>
<td>419.00</td>
<td>48.00</td>
<td>65.00</td>
<td>0.00</td>
<td>4.48</td>
</tr>
<tr>
<td>Hiring Publication Ads</td>
<td>10.40</td>
<td>2.79</td>
<td>0.00</td>
<td>0.00</td>
<td>19.31</td>
<td>372.93</td>
<td>9.45</td>
<td>2.79</td>
<td>100.00</td>
<td>0.00</td>
<td>100.00</td>
<td>499.00</td>
<td>48.00</td>
<td>100.00</td>
<td>0.00</td>
<td>5.61</td>
</tr>
</tbody>
</table>

Table 11-22: Statistical Analysis for Hiring (by channels)
Table 11-23: Data Collected From Survey Questions
12 Observations about the Recruiting Industry

Throughout the course of this work, we have seen a significant amount data showing the emergence of the online recruiting industry, as well as, some of its difficulties. This chapter will summarize what we have been able to identify as things that have and haven't been working for the online recruiting industry. It should be understood by the reader that no particular company has been targeted by this discussion; except as an attempt to illustrate successes or improvement opportunities.

We will begin this chapter by discussing the state of the business for online recruiting, moving towards identify processes that have worked well, and methodologies or techniques that haven't worked well. Leading then into online job hunting misconceptions, as well as, mistakes to avoid when pursuing a job online. We will conclude this chapter with the 'bottom line of online recruiting'.

12.1 State of the business

The online recruiting business continues to grow not only through prospective individuals looking to make a career switch, but also through those that are amongst the ranks of the unemployed that are in need of a job. Perhaps this increase can be attributed to the bursting of the internet bubble or due to the proliferation of businesses entering into this arena. Despite the reason, the more traditional methods used for recruiting, such as the use of classified ads, are impacted by this new channel. Approximately 49% of the employment website visitors are making $75,000 or more. Comparatively, this is a 24% more penetration rate for the same group viewing employment classified ads.

![Figure 12-1: Income Distribution of Classified Ad and Website Visitors](image-url)
This is a significant shift from years ago when the newspaper classifieds were the most used media for identifying and pursuing career changes.

While the online recruiting industry has seen an impressive growth over the past few years, its future for 2003 is less bright. According to CIO Insight Magazine's February 2003 report, which polled 385 U.S. CIO's to establish their 2003 priorities, recruiting was ranked the lowest amongst their top 10 priorities in 2003. On the top of the list is aligning Information Technology with the business goals. A result that isn't surprising considering our previous discussions with respect to IT spending.

<table>
<thead>
<tr>
<th>Top Priorities of US CIOs for 2003, by Business Size, November 2002 (as a % of respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aligning IT with the business</td>
</tr>
<tr>
<td>Under 1,000 employees</td>
</tr>
<tr>
<td>Over 1,000 employees</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Making the enterprise more adaptive, flexible and faster</td>
</tr>
<tr>
<td>Under 1,000 employees</td>
</tr>
<tr>
<td>Over 1,000 employees</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Developing strategies that leverage new technology</td>
</tr>
<tr>
<td>Under 1,000 employees</td>
</tr>
<tr>
<td>Over 1,000 employees</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Ensuring security and business continuity</td>
</tr>
<tr>
<td>Under 1,000 employees</td>
</tr>
<tr>
<td>Over 1,000 employees</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Ensuring projects are completed on time and on budget</td>
</tr>
<tr>
<td>Under 1,000 employees</td>
</tr>
<tr>
<td>Over 1,000 employees</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Reducing costs</td>
</tr>
<tr>
<td>Under 1,000 employees</td>
</tr>
<tr>
<td>Over 1,000 employees</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Helping to launch new products or lines of business</td>
</tr>
<tr>
<td>Under 1,000 employees</td>
</tr>
<tr>
<td>Over 1,000 employees</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Ensuring systems uptime</td>
</tr>
<tr>
<td>Under 1,000 employees</td>
</tr>
<tr>
<td>Over 1,000 employees</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Recruiting, retaining, developing staff</td>
</tr>
<tr>
<td>Under 1,000 employees</td>
</tr>
<tr>
<td>Over 1,000 employees</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Under 1,000 employees</th>
<th>Over 1,000 employees</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.9%</td>
<td>34.4%</td>
<td>31.7%</td>
</tr>
<tr>
<td>18.6%</td>
<td>18.2%</td>
<td>18.4%</td>
</tr>
<tr>
<td>14.9%</td>
<td>11.9%</td>
<td>12.6%</td>
</tr>
<tr>
<td>8.4%</td>
<td>14.0%</td>
<td></td>
</tr>
<tr>
<td>9.3%</td>
<td>11.2%</td>
<td>10.1%</td>
</tr>
<tr>
<td>3.7%</td>
<td>9.8%</td>
<td>6.0%</td>
</tr>
<tr>
<td>2.6%</td>
<td>5.2%</td>
<td>4.6%</td>
</tr>
<tr>
<td>2.5%</td>
<td>1.8%</td>
<td></td>
</tr>
<tr>
<td>0.4%</td>
<td>0.0%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

Note: n=385 US CIOs
Source: CIO Insight, February 2003

Figure 12-2: Top Priorities of US CIO's for 2003
The annual survey of the Global 500 companies conducted by iLogos Research, Global 500 Web Site Recruiting 2002 Survey, reveals that adoption of corporate website recruiting can be considered to have reached a mature state. In 2002, 91% of the Global 500 employs a corporate careers website as part of the overall corporate recruiting strategy. Adoption of corporate website recruiting for 2002 represents only a three percentage point increase over last year. By contrast, corporate website recruiting increased nine percentage points in the previous two years, from 79% in 2000 to 88% in 2001. Growth of corporate website recruiting is well off of its peak period of 1998-1999, when the practice grew from 28% of the Global 500 in 1998 to 60% in 1999. As the rate of growth decelerates, we expect it to take a relatively long time for the remaining nine percent of the Global 500 to join the corporations benefiting from corporate website recruiting. 

In an effort to inject some new growth into the online recruiting industry, the following sections will provide an insightful look into some of the positive aspects of online recruiting and in turn provide highlights on opportunities for improvement. It would be safe to say that these opportunities for improvement contribute somewhat (though not completely) to the 2003 business priorities set by the CIO’s throughout the industry.

In future chapters we will provide recommendations on how to address these opportunities for improvement and what we believe will provide the next catalyst to reignite the online recruiting industry.

12.2 What is working

According to our research online recruiting has provided the following benefits to not only those looking for jobs but also those looking to fill open positions. These benefits are:

- Reduced Time Savings
- Reduced Recruiting Costs
- Increased Information Availability
- Market Segmentation/Diversity of Companies
- Improved Metrics Collection
- Globalization

12.2.1 Reduced Time Savings

Whether or not you are looking for job openings or prospective candidates, cRecuriting has without a doubt provided a mainstream for accessing more information quickly. For the job seeker, potential new jobs may be found within minutes as compared to hours, days and even weeks. For the candidate seeker, prospective candidates can be found within hours versus weeks and even months; of which it used to take through the traditional recruiting channels. Conventional methods usually took 2-3 days to start getting resumes plus another day (or more) to reach them by phone; typically one full business week. Some struggled longer to obtain prospective candidates.

Generating a list of candidates qualified to do the job the old way took at least a week, says Jennifer Happillon, director of cFour, a Chicago search firm. "Today, we're on the phone with candidates in 24 hours," she says.

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Additionally, internet recruiting has a provided mechanism for immediate response from the employer just having received information on a prospective candidate. While today this automated response is typically in the form of a generic email, it does serve as an opportunity to notify the candidate that their critical information has been received. For the fortunate, that catch the eye of the hiring party, a different type of immediate response may begin the opening to a new career.

12.2.2 Reduced Recruiting Costs

We said earlier how recruiting costs were significantly lower when using an internet based approach. We thought it would be worth mentioning the typical cost profile which may be experienced by some of the different channels.

An average good size ad in the Sunday paper for one insertion could run $15,250,000. For that amount you can get an entire year of posting on the Internet. The Employment Management Association has included internet advertising in its cost-per-hire surveys for several years. In 1997, for example, it reported that the average cost-per-hire for a print ad was $3,295, while the average cost-per-hire with the Internet was $377. 85

12.2.3 Increased Information Availability

With over 14,472 million registered users and 9,319,999 million resumes in 2001 for Monster.com, it would be hard to argue that any other recruiting media was able to compete with this type of market penetration.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>My Monster registered users</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>6,665,527</td>
</tr>
<tr>
<td>Total resumes</td>
</tr>
<tr>
<td>Average Resume Growth per Day</td>
</tr>
<tr>
<td>Source: Jupiter Media Metrix, March 2001</td>
</tr>
</tbody>
</table>

Figure 12-3: User Statistics for Monster.com (2000-2001)

Therefore, the amount of information alone available to companies looking for candidates is unbelievable - let alone the millions of jobs posted on company web sites. What a wealth of information to have within reach of a few mouse clicks.

Over time, more and more information was collected; some of which unknowingly to the web surfer. We will see in the next section how this has actually led to a concern for those have visited career web sites or job banks.

Since the web provided such an easy avenue to investigate potential career changes, companies could begin to attract even those workers who were happy with their current position (also known as the 'passive job seeker'). According to iLogos Research 2001 report, this was approximately 51% of the traffic experienced by the corporate web sites.

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12.2.4 Improved Metrics Collection

In conjunction with having more information available, online recruiting provided the ability to collect more metrics regarding the type of people using the internet job sites and in some cases their expectations. When we compare this with traditional recruiting methods, such as classified ads, we can see how the use of the internet has produced an opportunity for increased ‘data mining’ as compared to the traditional methods.

Some examples of the types of information that could be collected are shown below in Figure 12-5: Positions Sought By Corporate Career Web Site Visitors and Figure 12-6: Highest Education Level Attained By Web Site Visitors. At first sight the reader, may not recognize the difficulty required in collecting this information the “old fashioned” way. With today’s internet technology, this information is collected while the user traverses the endless array of web links and in most cases is completely transparent to the user.

```
Figure 12-4: Employment Status of Corporate Web Site Career Visitors
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Figure 12-5: Positions Sought By Corporate Career Web Site Visitors
```
12.2.5 Market Segmentation/Diversity of Companies

Breath of life was given to the recruiting industry with the emergence of eRecruiting. Thousands and thousands of new companies were created to address the many different segments of the job seeker. There were companies who specialized in college jobs, executive jobs, specific professions; even the adult entertainment industry was on this bandwagon (www.triplejobs.com). No job arena or audience was left untapped. Then a metamorphosis occurred and companies emerged from either other companies or to assist the already emerging markets; such as companies that specialized in web traffic monitoring, and integrating multiple sites into one user interface – i.e. spiders, web sites by profession, and as well as by region.

The business of searching for jobs online has grown from a market niche to a multi-billion-dollar, rapidly consolidating industry that relies on the eager search activities and employment dreams – of millions of job seekers. It has also proven to be the ultimate recession-proof Internet business. As other technology companies flounder, online job search sites remain key resources in the wake of layoffs and uncertain employment prospects. In many ways the industry is a victim of its success. There are an estimated 10,000 job boards, and the number keeps rising, even during a period of high unemployment, because of the relatively low cost of starting them. Posting resumes online has gained widespread acceptance among anxious workers who want to keep their resumes out in the job market to increase their career options. 86

12.2.6 Globalization

The benefits of this new channel weren’t just experienced by the United States. Job websites were emerging all across the world. Corporate web sites from Europe to Asia-Pacific were quickly accelerating to catch up to the level of penetration achieved by the United States. Within three years, complete globalization reached 90% deployment for the Global 500 Company. Perhaps no other business has globalized as quickly as the online recruiting business.

According the December 2001 Flash Eurobarometer 112 survey, which polled more than 36,000 residents of the European Union, Iceland and Norway (Internet users and non-users alike), found that 30% of the Internet users had gone online to find a job (up from 28% in June 2001.)

Figure 12-8: Online Job Seekers in the EU (2001)

Figure 12-9: Canadian Online Job Search Activities (2002) shows that for the Canadian market over 80% of those who responded to the Ipsos-Reid July 2002 Survey had searched for a job online. Again, another feather in the hat for the globalization of the eRecruiting market.
12.3 What is not working

Unfortunately, the success of eRecruiting came with some disappointing discoveries. Within this section we will highlight some of the discoveries that appeared in our research. Listed in no level of importance these areas are:

- Privacy/Identity Theft
- Lack of Control
- Accuracy of Information
- Broken Feedback Loop
- Time Drain
- Lack of Standards
- Minimal Automation and Routing
- Decreased Customer Satisfaction
- Significantly Lower Quality/Pre-Screening
- Information Overload
- Fragmented Industry
- Low Percentage of Hiring from the Online Channel
12.3.1 Privacy / Identity Theft

Online resume distribution seems like a wonderful advantage. It can reduce mail costs and time and expand your visibility ... That's the good news. The bad news is that there are real dangers in distributing a resume online, particularly for executives. When you post a resume on the Internet, there's no confidentiality and no going back. Once your resume is in a public resume database on a recruitment web site, it's available to anyone who has access to the Internet. This may be less troubling to active job hunters, but it's obviously a problem for those still employed and just "window shopping" or testing their marketability.87

As we can see from Figure 12-10: Importance of Applying, which was the result of the iLogos Research during 2001, web site visitors were not concerned very much about maintaining the privacy of their recent visits to corporate career web sites. Close to 77% were not concerned at all about their names being revealed that they were looking for a potential job change.

![Importance of Ability to Apply Anonymously for Corporate Career Web Site Visitors](image)

**Figure 12-10: Importance of Applying Anonymously**

If fact many provided additional personal information during their visit. Over 90% were willing to provide their phone number and work experience with an amazing 68% that were willing to provide their references while surfing online. Unknowing, their unsuspected references, were now entered into the web of easily acceptable and freely available online information.

Unfortunately, it didn’t take long before problems began to emerge. As best that can be determined the first case regarding the privacy of information occurred in 1998.

For privacy-rights experts, the case has been a wake-up call. “We believe the entire job-search industry in dire need of regulation and reform,” wrote Pam Dixon, a research fellow of the Denver-based Privacy Foundation, and Beth Givens, founder of Privacy Rights Clearinghouse, a consumer advocacy group, in a letter to the Federal Trade Commission last week. “The industry has not set its own standards.”

In 1998, Unmesh Laddha, a technical consultant, put his resume on a web job board, where a headhunter copied it and sent it, without his knowledge, to his own employer, Argus Technical Services, a Milwaukee placement firm. Although Mr. Laddha had posted it seven months before joining Argus and never met the recruiter, he was embarrassed and frustrated. “Once I put my resume on the Internet, I couldn’t do anything to control it,” he says.88

Since this was the first case, many didn’t think much of the problems that were experienced by this unsuspecting job hunter. Slowly warnings began to surface.

According to the Denver-based Privacy Foundation, there is a danger that by applying for jobs online, your information -- including detailed work histories, salary information and other sensitive data -- might become a commodity that may end up in the hands of all sorts of people you never knew about.89

Protecting the privacy of personal information isn’t new. In fact, protection mechanisms have been in place both at the state and national level for quite some time. So the expectations by many were that these violations were only a brief lapse of nonconformity which was later stiffer through existing laws. Many were shockingly surprised to learn that the laws didn’t pertain to internet privacy.

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"There are privacy laws in most states, and they go against unreasonable invasion of privacy," said Jerry Cohen, a partner and chair of the Boston law firm Perkins, Smith & Cohen, LLP Science & Technology Group. "But when a person goes onto a job board listing, they waive privacy because they want their resume circulated for employment purposes." Cohen's views are echoed by several attorneys specializing in employment law. The privacy of resume databases is a gray area, at best. To date, no significant lawsuits have been brought against the search sites for such alleged privacy violations.  

With the heightened awareness about internet security and protecting one's privacy, one may think these problems have since been corrected and that eRecruiting is much safer than in its infancy years. According to the Wall Streets Journal, February 27, 2003 issue: “Monster Warns Job Seekers about Theft of Personal Data” this isn't the case.

NEW YORK — Internet job board Monster.com, acknowledging a growing problem for online career sites, is e-mailing millions of job seekers, warning that fake listings are being used to gather and steal personal information. An e-mail message from Monster, which arrived in many users' computer mailboxes Thursday, cautions that "regrettably, from time to time, false job postings are listed online and used to illegally collect personal information from unsuspecting job seekers."

Monster.com has taken a proactive approach to managing and verifying privacy authentication. In fact, they have a department dedicated to ensuring client privacy. Because of this they are able to quickly identify issues like the one sited above. One can only image, that without these separate efforts, how long such violations may have gone unnoticed.

Besides the problems discussed two other interesting ramifications developed. The first involves the life expectancy of the information submitted which we will discus in a subsequent section. The second encompasses the distribution of personal information to unsolicited and often secret third-party resume databases.

Behind the scenes, alliances were being formed to increase candidate flow to newly emerging job banks. Since the success of companies providing online job services were dependent upon a rather simple and flawed metric of website traffic, it was no wonder these alliances provided the 'pulse' to survival of these companies. What the unsuspected job seeker didn't know, is that with these alliances came the unknowingly distribution of their confidential information.

However, job seekers who post their resumes online face considerable threats to their privacy. Resumes may be stored by online job sites for many years, and may be misused for data mining and even identity theft. Additionally, corporations that encourage job seekers to send resumes directly to "the corporate website" often fail to tell job seekers that their resumes may also be posted to a third-party resume database for searching by other employers.

The above violations were just isolated to full time positions. Consider the following case involving one of the largest temporary placement agencies in the United States.

For example, a job seeker who posts a resume at Adecco International's corporate Web site [www.adecco.com] is also posting the resume to Monster.com and creating a Monster.com profile. The profile is then available at Adecco.com, Monster.com, and all other private label sites. This is done without disclosure on the Adecco or Monster.com site.

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Former employees of Monster.com confirmed in separate interviews that corporations that have a "corporate affiliate" relationship with Monster.com — internally called "private labels" of Monster.com — transfer job seeker resumes and profiles to Monster.com without disclosing this. Technical analysis of a selection of independent corporate sites backed up the claims of these employees.

A private label company is one that has paid Monster.com to manage its corporate resume posting process. This is a common business arrangement. For example, The Wall Street Journal's CareerJournal site is "powered by" CareerCast, which means that CareerCast does the job search data work. This relationship is posted clearly on the site and is discussed in the privacy policy at the site. Quickly users realized that once they submitted their personal information to either a corporate web site or online job data bank, they lost control of its distribution.

12.3.2 Lack of Control

Job seekers who post a resume online can find themselves losing control of their information — and sometimes pay the price by losing their jobs. Fortune magazine, back in May 1999, reported on employers who have fired — or in some cases, try to "salvage" — employees whose resumes were posted on sites such as Monster.com.

The digital divide, where all information is transmitted in the simplest of all formats (0's and 1's or bits) opened the doors to dispersing client information easily without leaving a trace for those that have been violated. For those readers who would like to know more on how this was accomplished, Chapter 16.1-Detailed problem description; Monster.com and Private Label corporate sites and Chapter 16.2-Monster.com Detailed Problem Description: User Tracking involving AOL have been provided for additional background.

Time and time again confidential user information was copied. More desperate recruiters download resumes in bulk and ship them off to their clients without alerting the candidates in question.

It can and will be copied countless times by software applications used by other such sites to increase their own resume count or to find prospective candidates for clients. You'll never know which web sites made the copies or which organizations received it. As a result, it's impossible to take yourself off the market, even after you've secured a new position. Your resume will always be out in cyberspace.

Before we leave this section, the reader should be aware that the Privacy Foundation has made recommendations to the industry on how to provide better protection for the privacy of the candidates' information. We have included this information in Chapter 16.3-Privacy Recommendations.


12.3.3 Accuracy of Information

Another area where the online job market has fallen short is with respect to the accuracy of the information that was posted both for the job seeker and the candidate seeker. The job seeker often discovered that the jobs they were interested in were already filled or didn't really exist. Of course their discovery may not have been realized until weeks or months later after having already spent the time to submit their credentials.

For the candidate seeker, the story was equally as frustrating. By the time the hiring manager or company found the time or resources to pursue potential candidates they discovered the candidate was no longer looking to make a career change.

According to the Wall Street Journals December 12, 2002 article: “Why Company Web Sites Often Fail Job Candidates” many job seekers often found that the information on corporate Web sites about jobs is often outdated.97

Any time customers spend their valuable time, only to discover, it was wasted on phantom job positions, disappointment begins to surface. Perhaps this was the result of the rapid expansion in the late 1990's which was faster to hire candidates than it was to update their posted information. If this is the case, then during our current economic recession, one would expect more accurate information to be posted throughout the interwoven web of the internet. Unfortunately, the problem still exists today.

Users say the boards often have out-of-date listings and that inquiries go unacknowledged by potential employers. In fact, many users are finding that job hunts conducted solely online rarely produce jobs – a phenomenon made worse by the current economic downturn.98

12.3.4 Broken Feedback Loop

When one enters into the job search market, they often do so with the expectations that their efforts will produce a list of potential positions for which companies have identified a ‘win-win’ opportunity. Unless there is bi-directional communication, there would be no opportunity to bring closure to the job seeker and the candidate seeker relationship. An unrealistic expectation, it is not. However, the reality of this expectation is that somewhere along the line the bi-directional communication breaks down. The result is either the prospective employer doesn’t get back to the candidate or the candidate never gets back to the prospective employer.

No matter where the disconnect occurs, the feedback loop is broken as well as the optimistic hopes of one or both interested parties.

Initially, in 2001 those who visited the Corporate Web Sites looking for new opportunities only expected an email acknowledgement that their information had been received and routed to the appropriate parties. Overtime, this simple correspondence was just an automated reply which broke the link for additional feedback. Users deleted these response emails with as much attention as the corporations who were sending them.


Eventually, the job site visitors discovered that the job hunters who get the best results are those who follow up their email correspondence with the old-fashioned techniques -- persuasive hard-copy letters and phone calls to employers.99

12.3.5 Time Drain

As mentioned earlier, time and effort grew sufficiently for either submitting the necessary information for a potential job or in providing the job availability information. Since candidates typically spend a significant amount of their time polishing their resume until it is just right for submission, it wouldn’t surprise the reader that when iLogos conducted their research in 2001 that approximately 38% of career site visitors were willing to spend 30 minutes or more submitting their polished credentials to the prospective employer.

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Along the way, either candidates became less detailed with the information they provided (leading to a quality problem which will be discussed later) and/or prospective employers spent less and less time reviewing potential candidates.

The unemployed spend hours pouring over job descriptions on internet job boards. However, only 10% of positions are obtained over the internet, says Ms. Lindsay. More important than resumes submitted is the relationships between job seekers and hiring managers.\footnote{100}

12.3.6 Lack of Standards
As we discussed previously, the online recruiting industry lacks an agreed upon standard for not only submitting and collecting the necessary candidate/job information but also with respect to collecting web site information. This point is further supported by the 2002 Staffing Metrics Benchmark Report which reveals that there is substantial variation in the metrics collected by the industry, organizations and even within the different regions.

12.3.7 Minimal Automation and Routing
With the increase traffic flow from the ‘front-end’ of the eRecruiting technology investments, a natural bottleneck was the neglected ‘back-end’ for the many companies that raced to get their web sites up and running. Information technology investments, while minimal in this area, where and are needed to better parse candidate information, route to the prospective hiring manager, monitor the candidates progress as well as the positions status, and finally collect return on investment metrics.

Despite these requirements, early projections regarding the growing popularity of scanning resumes have not matched forecasts.\footnote{101}

Early innovator companies understood the power of the Internet as a channel to attract new candidates. Presently, corporate careers website utilization among Global 500 corporations has reached the level of close-to-full adoption. While the most innovative companies understood the power of the Internet as a medium to attract new candidates several years ago, they are now well on the way to streamlining their processes completely. As a consequence, we are seeing a second curve of innovation that is only in its infancy. New recruitment technology integrates the results of the first wave of innovation – the corporate careers website – with a comprehensive back-end system, which builds on the first innovations to yield superior results. Within this context, ilogos Research forecasts an acceleration of the use of integrated solutions, reaching the early majority phase in 2002-2003.\footnote{102}

This area offers a huge potential to improve a company’s recruiting efforts; though would require a shift in CIO priorities to ensure its success.

12.3.8 Significant Lower Quality Control / Pre-Screening
In 2001, ilogos Research reported that only 4.6% of the Fortune 500 companies were providing pre-screening tools on their career web sites. While this was an increase from the 1.4% in 2000, it was still an extremely disappointing number.


\footnote{101} Dumas, Michelle, “Creating Byte-Able Resumes For Electronic Job Searching” in CareerXRoads 2003, ed. Gerry Crispin and Mark Mehler (New Jersey: MMC Group, 2003), 26

Figure 12-14: Pre-Screening Tools on Career Web Sites (Fortune 500) 2000-2001

By the end of the year, pre-screening was recognized as the number one best practice by the Fortune 500 firms with a 228% increase from the previous year. One can only suspect that pre-screening was recognized as a key process for reducing the volume of resumes which fell well outside of the range for acceptable candidates. As a result, this method proved to be a valuable investment in reducing the 'big bang' approach candidates were practicing in hopes of landing a new job.

Online Recruitment Best Practices of Fortune 500 Companies, 2001 (as a % increase from 2000)

<table>
<thead>
<tr>
<th>Job-specific pre-screening tools*</th>
<th>228%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job agent</td>
<td>120%</td>
</tr>
<tr>
<td>E-mail to a friend</td>
<td>117%</td>
</tr>
<tr>
<td>Posting a privacy policy</td>
<td>55%</td>
</tr>
<tr>
<td>Reuse of candidate information for multiple job applications</td>
<td>43%</td>
</tr>
<tr>
<td>Searchable database of job practices</td>
<td>16%</td>
</tr>
</tbody>
</table>

Note: *Pre-screening tools may be designed for generic online pre-screening, questions-based pre-screening, and/or skills-based pre-screening.
Source: iLogos Research, December 2001

Figure 12-15: Online Recruitment Best Practices (% increase 2001 vs. 2000)
Another important aspect of quality is the long-term effect of the "cost of a bad hire". The cost of a "bad hire", on average is three times their salary. The very worst hire may cause damage that exceeds their salary by over 10 times.\textsuperscript{103}

Limited information exists today with respect to companies measuring this cost. We believe this is another opportunity for growth within the industry.

Therefore, one of the best ways to improve a company is to begin to recruit quality people who produce more per dollar of salary paid than those hired the preceding year (and who produce more per dollar spent on them than people hired by competitors).\textsuperscript{104}

12.3.9 Information Overload

In previous sections we shared insights into the volumes of information which were both received and submitted through the eRecruiting channels. While Internet job postings may save advertising costs and attract a plethora of candidates to choose from, it also can mean being inundated with hundreds of resumes. These resumes must be read, sorted and responded to, including those of unqualified candidates or candidates seeking to relocate.\textsuperscript{105}

Experience tells us that change is difficult, even it is for the better – especially when it includes the use and understanding of new technology. For many, the deployment of new technology in the workforce significantly increased not only the amount of information that had to parsed and redistributed, but more importantly it added more and more time to the already over extended work day. Contrary to what was initially predicted, the internet did not reduce the amount of time people were spending working. Instead it increased the amount of time people were spending on work related activities. Some argue that it wasn’t the internet that caused this increase, but more the “new age” business philosophy of empowering the workers. Thus, it was the empowerment which has continually increased the average work day for employees. Was it the empowerment, or was it the internet which allowed the workers to have access to more information, and in turn being more empowered because of their access to information and their ability to make better decisions from this available information?

Perhaps this is another manifestation of which came first the “chicken or the egg”. In either, case one thing that is certain is that the emergence of the internet/intranet driven world has increased the access to all types of information.

This point is confirmed by the Tower Perin September 2001 report which reported that 84% of their respondents felt the increased technology increased the stress through the demands of a 24/7 work environment. Additionally, 71% of the respondents felt their job suffered because of information overload.

\textsuperscript{103} Dr. John Sullivan, HR Metrics: The World Class Way; Kennedy Information, 2003, 36

\textsuperscript{104} Dr. John Sullivan, HR Metrics: The World Class Way; Kennedy Information, 2003, 61

Figure 12-16: How Technology Affects Employees and the Workplace (2001)

The demands placed on the online recruiting industry were no different.

Astonishing 37% of online recruiters were spending twenty-one or more hours per week on the Internet. Many of these people were consumed with searching for resumes in newsgroups. Although that activity bears no cost, its results — measured in terms of time-to-hire — would almost certainly yield a low return at best.106

The end result is that the hiring managers spend less time (an average of 17 seconds) studying each resume, according to Delese Lindsay, a consultant at DBM, a firm devoted to managing career transitions. Only 1 in 100 resumes delivered elicited a return phone call.107

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12.3.10 Fragmented Industry
As with any technology advancement the increase of company participation, while good for competition, often leads to a product commodity. According to InterBizNet, the recruiting industry is no different and thus will continue to fragment itself for the following reasons. 108

- A Job Board can be profitably executed by a team of four and generate about $1 million in annual billings.
- No historical entity has been able to carry off more than 4% of the overall market.
- There are no meaningful barriers to entry in the business in spite of what the entrepreneurs are telling their funders.
- Like other markets with consumer front ends, the top of the market can have as many as a dozen recognized brands.
- The low end of the business (the low 90%) is a micro-niche relationship endeavor best suited to small teams.

12.3.11 Decreased Customer Satisfaction
Because of the reasons mentioned above, it would come as no surprise to the reader that respondents were seldom satisfied with the results achieved by searching for resumes in newsgroups, acquiring resumes through a resume distribution service and purchasing a print ad which included a job posting on the publication’s web site. 109

12.3.12 Low Percentage of Hiring from the Online Channel
Perhaps the most disappointing of all results has been the lack of actual hiring that has occurred via the online channel.

But despite the reach and apparent ease online job searches offer, a surprisingly small proportion of jobs get filled that way. Only 6% of hires for management-level jobs currently occur through any Internet site, compared with 61% for networking, according to a recent study by Drake Beam Morin, a New York firm that provides outplacement counseling services to big companies and advises job seekers on a variety of methods including the job boards. 110

Further illustrating this point is the following Sourcing and Hiring Statistics for 2000 (collected by the author) in the tables below. It is important to note that of the 500 resumes received via the web channel only ten resulted in interviews, from which zero were hired.

---


<table>
<thead>
<tr>
<th>Total By Channel (2000)</th>
<th>Career Fair</th>
<th>Recruiter</th>
<th>Web</th>
<th>Referral</th>
<th>College Web</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td># Resumes Received</td>
<td>0</td>
<td>100</td>
<td>500</td>
<td>40</td>
<td>350</td>
<td>990</td>
</tr>
<tr>
<td># Interviews</td>
<td>0</td>
<td>4</td>
<td>10</td>
<td>15</td>
<td>36</td>
<td>51</td>
</tr>
<tr>
<td># of Hires</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>% Hire of Total Rec'd</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>1.21%</td>
<td>0.40%</td>
<td>1.62%</td>
</tr>
<tr>
<td>% Hire of Total Interview'd</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>23.53%</td>
<td>7.84%</td>
<td>31.37%</td>
</tr>
<tr>
<td>% Hire from Channel (Rcv'd)</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>30.00%</td>
<td>1.14%</td>
<td></td>
</tr>
<tr>
<td>% Interview</td>
<td>5.15%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Hires (of Interviewed)</td>
<td>31.37%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Hires (of Total Rec'd)</td>
<td>1.62%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12-17: Sourcing and Hiring Statistics – Authors Data

However, all is not lost with regards to Web Recruiting. The hiring statistics from the college web channel are much more impressive with an approximate 11% interview rate and a little over 1% hire rate from this channel.

These statistics become even more alarming when the recruiting channel is included in the web channel. Since the sourcing of recruiting candidates came from a recruiter, it is unknown how the recruiter received them. A high probability assumption is that the recruiter received the majority of the resumes from either the corporate web site or other eRecruiting channels.

Of course, one manager’s perspective for a given year may not be representative of other companies’ experience. For this reason, we have included additional statistics from another manager. Noticed that during 1998, the online recruiting success was similar; further strengthening the need for improvements.

<table>
<thead>
<tr>
<th>Total By Channel (1998)</th>
<th>Career Fair</th>
<th>Recruiter</th>
<th>Web</th>
<th>Referral</th>
<th>College Web</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td># Resumes Received</td>
<td>101</td>
<td>155</td>
<td>0</td>
<td>96</td>
<td>120</td>
<td>424</td>
</tr>
<tr>
<td># Interviews</td>
<td>6</td>
<td>13</td>
<td>0</td>
<td>10</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td># of Hires</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>% Hire of Total Rec'd</td>
<td>0.21%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.85%</td>
<td>0.21%</td>
<td>1.27%</td>
</tr>
<tr>
<td>% Hire of Total Interview'd</td>
<td>7.69%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>30.77%</td>
<td>7.69%</td>
<td>46.15%</td>
</tr>
<tr>
<td>% Hire from Channel (Rcv'd)</td>
<td>0.99%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>4.17%</td>
<td>0.83%</td>
<td></td>
</tr>
<tr>
<td>% Interview</td>
<td>5.15%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Hires (of Interviewed)</td>
<td>31.37%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Hires (of Total Rec'd)</td>
<td>1.62%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12-18: Sourcing and Hiring Statistics – Another Managers Data

This leads to the recommendation that:

> Job seekers should use the Internet to collect information, says Mark Mehler, a CareerXroads principal. But he cautions them against over reliance on the Internet. People should remember "that in the majority of corporations in America, employee referrals are the No. 1 source of how people get hired," he says. 111

Finally, we close this section with the following senior consultants view on the best way to land a new job.

Many progressive firms are "re-discovering" referrals. One name firm gets over 60% of its hires from referrals. Referrals are effective because great employees usually know other great people in their field. This is because "A" players know other "A" players because they interact with each other on a regular basis through benchmarking, e-mails and conferences. By giving a bonus for referrals that are hired firms can both reduce their hiring costs and involve their employees in the recruiting process. As a candidate it's important to let your friends (that work at firms with referral programs) know that you are actively looking.

Mary Ann Blackwell, a senior consultant in Washington, DC, says with the job market so tight 80% of all positions and 90%-95% of top echelon jobs are found through personal contacts.¹¹²

12.4 Online Job Hunting Misconceptions

This section has been provided to identify some of the job hunting misconceptions. Our purpose is to clarify these misconceptions, thereby potentially, improving the success of the eRecruiting channel. A list of electronic job hunting misconceptions is as follows:¹¹³

- I can post my resume online and wait.
- Only the most recent postings are worth applying to.
- Dave Smith, an information-technology professional in Boston, says he stopped applying to jobs with "dated" postings after learning that some positions were no longer available. "I've found that online postings are often left active long after the job has been filled or cut," he writes in an e-mail.
- Nobody's monitoring my job search when I'm at work.
- Your employer may legally monitor every click you make on the Internet at work
- I should focus my search on the big job-boards.
- Large job-search sites offer a wide variety of employment opportunities, but they're not necessarily the best resources.
- It's acceptable to send my resume as an attachment.
- It is best to paste the information into the body of the e-mail. Instead, create a resume in plain text using a text editor software program, such as Note Pad.
- My privacy is guaranteed when I leave my resume on job-search sites.
- I can apply to several positions posted by one employer. Note: You shouldn't submit more than one resume to the same employer.
- My resume should be one page in length and my subject line should be generic.

Further details regarding the specifics of these misconceptions are left to the reader.


12.5 Mistakes to Avoid When Pursuing a Job Online

Once the misconceptions have been changed, anyone wishing to apply for a job online should try to avoid these ten mistakes as reported by the CareerJournal's article: "The New Rules of Hunting on the Net".  

1. Posting your resume indiscriminately
2. Sending your resume to an employer as an attachment
3. Inviting employers to a personal web site that isn't top notch
4. Writing elaborate e-mail cover letters
5. "Flaming" others
6. Getting lost on the Internet
7. Putting all your eggs in one basket
8. Applying to multiple jobs at the same company
9. Listing references on your resume
10. Mass mailing a resume

12.6 The Bottom Line on On-line

How helpful are corporate Web sites in assisting job seekers with exploring employment opportunities at their companies? Not very, according to a new study of the job-search pages of the nation's largest companies. And when it comes to helping executive-level prospects, companies do even worse. The study rated the recruiting pages of the Web sites of the companies in the Fortune 500 on a scale of zero ("offers no value") to five ("world class") using criteria important to job hunters, such as how easy it is to find and apply for current job openings and how much feedback applicants receive. None received the top rating, and only 40 received a three-plus or better, say Gerry Crispin, a principal of MMC Group, a staffing consulting firm in Kendall Park, N.J., which conducted the study.

The majority (360) only satisfy job seekers' most rudimentary information needs, such as listing the current openings or available benefits. A sizable number (105) can't meet visitors' "simplest expectations" about finding and applying for jobs. The worst sites in this latter category include no employment information, while the better ones provide only static material that resembles corporate marketing brochures, says Mr. Crispin. Still, job hunters likely will be interested in the study's list of the top 25 corporate.  

And so ends our discovery. Of course without two points on a graph we don't have a straight line. Therefore, another perspective to draw upon:


After examining the Web site staffing pages for each company in the Fortune 500, we concluded that the promise of Internet recruiting for the job seeker is still more smoke and mirrors than reality. The jobseeker's experience of the recruiting process on the digital plan is far from satisfying. 460 (92%) of firms show some evidence of offering opportunity via their Web site. However, 105 (22.5%) cannot meet the simple expectation of an active job seeker wanting to find a job and apply for it. The majority 360 (72%) meets only rudimentary informational needs and even struggle to collect data efficiently. Only 3 (1%) of the companies we visited online could satisfy a prospect's (very reasonable) expectation to be informed of the status of their application.¹¹⁶

All is not lost for the eRecruiting. We believe that once the improvements identified have been corrected, the industry may eventually become the dominating hiring channel - which would be the ultimate measure of success for this industry.

13 Recommendations for Improving the Recruiting ROI

When we initiated the work for this thesis, we were anticipating to find more companies actually measuring the ROI of their recruiting efforts. Disappointedly, we found few if any were. Therefore, we would like to take an opportunity to provide a series of recommendations which we believe can be used to leverage the maximum return of this emerging e-channel.

13.1 Back to the Basics

Our emphasis will be on defining a simplistic approach which can be used by any company, even those of the smallest size. We anticipate, like any model, this will form the foundation from which other more complex methodologies will emerge.

Discussion for this section will center on the following areas:

- Improvements for the ‘front-end’
- Improvements for the ‘back-end’
- Changing the Reward System
- Outsourcing/Partnering
- Candidate Evaluation Scorecard
- Metrics Reporting
- IT Governance
- Process Measurements/Certification
- Workforce Planning
- Aligning eRecruiting Strategy with Corporate Goals
- Company Culture

While many of the concepts are not new, or have been previously seen in one fashion or another, their emphasis shouldn’t be ignored – especially when trying to maximize the ROI of their IT process initiatives; but more importantly the most valuable asset of the company – its human capital.

Making your recruiting site effective revolves around making the application process easy, keeping job listings updated, and developing a relationship with the candidate. That's the advice from Jim Hay, manager of e-marketing and business development at the Tiburon Group, a recruitment consulting firm. He says, “You don’t want to discount even one résumé. You can never afford to alienate potential customers.”

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13.2 Improving the ‘front-end’

Significant investments have been made within most companies to create a corporate web site for recruiting. We have already seen that approximately 90% - 95% of the companies utilized some form of corporate web site recruiting. To many this may be the only thing needed to create a ‘front-end’ recruiting system. However, there are several areas which still need some attention. They are:

- Profiling
- Searching
- Screening
- Routing
- Evaluating

13.2.1 Profiling

In many engineering fields, whether it is software or hardware, they stress that requirements gathering is one of the most important phases of the process. In some instances requirements gathering should be as much as 30-40% of the overall process cycle. The end result is not only a product that matches the customers’ expectations, but more importantly, a significant reduction in maintenance costs and its respective cycle time (which for the software industry can be 80% of the total product lifecycle).

So why should defining the desired characteristics and skills for the human capital of a corporation be any different? It shouldn’t. Though the difficulty, like any requirements gathering phase, is identifying what the customer actually wants. Sometimes, the customer doesn’t even know.

Previously, we indicated that the reality of this phase was that it was conducted in a short interview with the recruiting and the hiring manager. The recruiter would work with the manager to identify specific traits before conducting their internet search.

Our view is that some of this requirements gathering could be performed through an IT based system. The first reaction one might have is why the need for more infrastructure? By using a rule based system, the user could easily identify the type of characteristics which may be appropriate. These characteristics can then be reviewed with the recruiter (giving them something to initially work with) and then passed onto the ‘back-end’ system which we will discuss later.

Another, yet important, ancillary outcome of using such a system is the ability to capture metrics and or changes in the requirements. No matter what industry or field, we guarantee the initial requirements will change from those which are initially delivered. Using such a system will help track when the requirements changed, and potentially, the impact of the delivery expectations which may be placed upon the recruiter (i.e. they didn’t deliver the candidates profiles within the hiring window … maybe this was the result that the hiring manager changed the candidate requirements two weeks before the deadline.) Both parties, over time, can gain a better understanding of how to define the preferred requirements for satisfying their need.

Before we leave this section, we would also like to recommend that having such a system would allow the company to improve their work force planning; especially when the company may not be hiring. Since hiring often comes in ‘waves’, where the peak is a compressed interval demanding to have positions filled in a limited time, any opportunity to ‘leap-frog’ the process would not only reduce the cycle time but improve the quality of candidates.

It has been our experience that companies who typically perform this pro-active planning tend to be the most prepared when the hiring heat is turned up. Some companies such as D’Andrea & Associates in Silicon Valley specialize in this type of service. Whether this is done internally or externally through a 3rd party organization, the ability to pro-actively plan a company’s’ work-force has significant advantages.
Organizational success depends on having the right employees with the right competencies at the right time. Workforce planning provides managers the means of identifying the competencies needed in the workforce not only in the present but also in the future and then selecting and developing that workforce.\textsuperscript{118}

13.2.2 Searching
Searching will be discussed more in the section on ‘back-end’ improvements. Improving the searching for candidates is highly dependent upon better screening methods. We saw in a previous section that the percent of hires from the total number of candidate profiles received was between .5% and 1.3% (for one company). A goal for most companies should be greater than 30% at a minimum. For this to occur, screening techniques will have to be implemented to improve the 2001 statistic of 4.6% utilization of pre-screening tools for the corporate career web sites.

13.2.3 Screening
As previously discussed, in Section 12.3.8: Significant Lower Quality Control / Pre-, pre-screening should be a must for any career web site. The consequences of having an inadequate screening can be more than just time and volume issues. The worst effect can be financially devastating to a company. While the guidelines for performing screening include background, skills, employment history, credit history, etc. Often the processes for doing these tests are overlooked (especially for the temporary work force). As an example of what can happen due to a lack of screening - In February, the Indianapolis Star newspaper reported that a temporary worker with a criminal past had been charge with stealing nearly $11,000 from the pension accounts of public employees. Because she was a temporary worker from a local staffing agency, no background check had been run.\textsuperscript{119}

Additionally, consider that one out of four resumes contain a major flag that would have been caught through basic screening. “About 25% of the CV’s that are sent in do contain some reasonably significant over-inflation or absence.” Says Christopher Grose, director at Control Risks.\textsuperscript{120}

Of course increasing pre-screening techniques (especially screening performed via web sites), will increase the amount of time candidates are required to spend submitting their profile. Overall, in the long run, it will reduce the amount ‘of time wasted’ that can occur through a ‘big-bang’ approach in providing candidate information. The end result will be an improved candidate to available job matching for both parties.

13.2.4 Routing
Gone should be the days of manually routing hard copies of candidate information. Nothing further needs to be said regarding the benefits of an automated routing system. Ideally, such a system should provide the capability to exclude future submissions, annotate with the hiring manager or recruiter comments, provide tracking status (i.e. candidate being interviewed by xxy group), and other pertinent human resource recruiting information. It would not be surprising if such an IT deployment would yield a 20% improvement in cycle time.

13.2.5 Candidate Evaluation Scorecard
Many companies have some form of an evaluation process for their employees. Some companies, such as Cisco Systems Incorporated, have made the IT investment to complete and track the employee evaluation process via their intranet. The benefits of such an online system are improved workflow processing and employee evaluation standardization.

Of those companies that have such an employee evaluation system, how many have deployed similar online tools

\textsuperscript{118} Eksenazi, Jeremy, “Workforce Planning: The Key To True Strategic Staffing And Recruiting” in CareerXRoads 2003, ed. Gerry Crispin and Mark Mehler (New Jersey: MMC Group, 2003), 44

\textsuperscript{119} Financial Times, Pre-Employment Screening, by Sarah Murray, Wed. April 2, 2003, 111

\textsuperscript{120} Financial Times, Pre-Employment Screening, by Sarah Murray, Wed. April 2, 2003, 111
for evaluating their prospective candidates? – Very few, if any would be our guess. One may even find, that even
the most elementary tracking of candidate evaluations are probably either “lost in space” or didn’t even “take off the
ground” before the candidate was hired.

For those that may not be familiar with such an evaluation process, we have included a template which can be
changed to match the current expectations within the company. This template consists of skills, a rating system,
and appropriate weights which may be adjusted based upon the various employee grade levels within the company.
At an absolute minimum, using a manual version of this process, will improve consistency across the company’s’
candidate evaluation and hiring practices. Though most importantly, it will allow the company to collect employee
hiring information which can be used to improve their recruiting efforts. A template for such a process may be
found in Figure 13-1: Proposed Candidate Evaluation Scorecard which should be linked to the corporate evaluation
criteria’s.
<table>
<thead>
<tr>
<th>Performance Factor</th>
<th>Weight</th>
<th>Scale</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Job Responsibilities</td>
<td>2.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Knowledge of Work</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Initiative</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Short Range Planning</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Long Range Planning</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Performance goals objectives</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Technical Knowledge, Skills &amp; Expertise</td>
<td>2.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Job-specific technical knowledge</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Product development process</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Knowledge of tools</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Data analysis</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Identifies and implements strategic plans</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Supervision Given/Delegated</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Delegating authority and responsibility</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Training &amp; Developing</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Task Management / Follow-up</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Planning / Acting &amp; Anticipating</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Specific Factors</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Technical knowledge</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Teamwork</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Innovation &amp; Learning</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Solves problems &amp; Makes Decisions</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Establish plans</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>未曾得分项</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication Effectiveness</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Oral &amp; written communication skills</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Encourages and accepts personal feedback</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Professional presentation skills</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Interpersonal communication</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Problem Solving / Decision Making</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Problem solving</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Judgement with defined standards</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Stressful decisions</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Handles complex problems</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Influence / Leadership</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>Leadership</td>
<td>1.0</td>
<td>Low</td>
<td>3.00</td>
</tr>
<tr>
<td>未曾得分项</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education &amp; Experience Required / Preferred</td>
<td></td>
<td>Low</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Totals: Primary Factors Weights (must total 100) 100

Combined = Weight x Category Rating / Sum of Subcategories

Overall Score = Sum of Combined

Figure 13-1: Proposed Candidate Evaluation Scorecard

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13.3 Improving the 'back-end'

In one form or another, most of the automated improvements discussed in the previous section can be implemented through a 'back-end' or applicant tracking system. The reader shouldn't feel the dependency to implement a full scale 'back-end' system – hence the reason why this section is separate from the previous section.

The reader may find the following regarding applicant tracking systems (ATS) useful:


![Figure 13-2: How satisfied are you with your current ATS?](image)

We believe this is the next major IT expense for recruiting within the Human Resource departments. Due to the amount of tailoring required, it is imperative that a company defines their expectations and deliverables before pursuing such a deployment. Additionally, measurements should be put in place that can be used throughout the deployment phase, as well as, on an ongoing basis for the user community. Our recommendation is that an off-the-shelf system should be preferred versus developing an in house system. Whether or not this off-the-self solution is single vendor or multiple will depend upon the agreed upon requirements.

13.4 Changing the Reward System

Many of us are aware of the old saying: "you get what you reward". Therefore, if we are going to reward recruiters for the total number of candidates sourced, then we are going to get volume over quality. Of course, developing a reward system is no easy task – or else someone would have defined the 'silver bullet' for measurable success.

While defining such a reward system, should involve those in the industry and are beyond the scope of this work, some thoughts come to mind. First, could a system be defined that pays recruiters a small fee (i.e. a finders fee which is significantly lower than being received now) and continues to pay a small percentage for the a candidate completing their defined measurable goals. Several major assumptions are tied to this approach. These measurable goals must be reasonably defined not only within their scope but also timeframe. The objective should be to
develop a system which forces the identification and hiring of the ‘right individuals for the company and the job’ versus ‘the first candidate for the job’. In the long run, candidates should be a better match for the company and thus will reduce employee turnover costs. For the recruiter, their incentive is an ongoing stream of revenue. Of course the numbers should be ‘crunched’ further to ensure a reasonable reward system. It is our belief that this type of reward system offers the potential to create an incentive system better than the current reward system of quantity.

Second, during our research we discovered some discussions suggesting that a corporate recruiter should be paid a base/commission split of either 60/40, 70/30, 75,25 etc with a guarantee pay of 50% and commission linked to the number of requisitions closed. Again, it is our belief that performance should be rewarded beyond the quantity measurement. We leave this discussion to those who are more qualified to provide a better system.

Third, as a service organization it should be rather easy for the reader to understand the benefits which could be gained by funding the recruiting department through a cost-based-accounting method. Departments could structure their payments based upon measurable criteria for which the recruiting organization, in conjunction with the hiring department, have agreed. By using a ‘charge-as-you-use’ system, both parties will ensure that their cost over-runs are minimized and, we believe, will begin to improve their opportunity for doing business. Services will increase, department demand will go up, and everyone wins.

Another modification to this ‘charge-as-you-use’ system is the ‘fee-for-service-model’. In this model, managers only pay for the individual HR services that they actually use. This means that managers who do a great job of retention, recruiting, and motivating employees (and therefore need little help) don’t have to use any level of HR service.\(^\text{122}\)

Finally, we have seen various forms of recruiting functions within companies. Some companies have full time Human Resource teams dedicated to recruiting, others adopt more of a ‘guns for hire’ approach, and/or outsource or out-task this activity all together. If a company wishes to maintain this activity internally, then most likely they will be faced with the dilemma of dedicating an individual to specific departments or rotating resources across multiple departments on an ongoing basis.

It has been our experience when the department rotates recruiters, within short time frames (three to 12 months), any long term benefits are lost. This assumes of course that rotation is not required because of performance reasons. Just when the recruiting organization begins to work harmoniously with the hiring departments/managers, things are disrupted and the process starts all over again. In a ‘time crunch’ demand, this tends to become an impairment versus a strength.

We understand that the challenge is how to scale all the recruiting efforts with limited staff. Lately for some companies, it appears that the recruiting responsibility for individuals has been ‘rolled-up’ with additional responsibilities. If the recruiting demands are minimal, then this approach may be sufficient. However, what if the corporate recruiting demands begin to accelerate, will the company be in position to proactively react to this new demand curve?

Most likely, this means combining multiple departments under a single recruiter which ends up looking like a ‘rotation’. The demand then rises, placing the departments recruiting activities in a reactive and again ‘time crunch’ challenge. Perhaps scaling to this variable demand curve is the primary source of the problem. There just aren’t enough people available to meet the organizations recruiting demand when needed. If this is the case, then the company should begin a strategic initiative to plan the workforce needed one, three and even five years out. Additionally, outsourcing and/or out-tasking the human capital activities of a company may be the answer.

\(^{122}\) \url{www.drsullivan.com}, “Gaining Respect through Service Level Agreements in Recruiting” by Dr. John Sullivan, Dr. Sullivan; available from \url{http://64.87.31.133/articles/2001/030501.htm}; Internet; accessed 22, March, 2003.
13.5 Outsourcing/Out-tasking/Partnering

We have intentionally refrained from discussing a strategic approach for improving the recruiting industry until this section. Before we begin our discussion on outsourcing/out-tasking we would like to discuss the Delta Project: Discovering New Sources of Profitability in a Networked Economy.\(^{123}\)

After completing our discussion regarding the Delta Project and how it can be applied to the recruiting industry, we believe the reader will gain a better understanding on how to increase their return on investment/profitability within the eRecruiting industry.

13.5.1 The Delta Initiative

In their book The Delta Project: Discovering New Sources of Profitability in a Networked Economy, Arnoldo Hax and Dean Wilde, provide a new approach for developing a companies strategy in the networked economy. Economic networks have altered the nature of competition, amplifying the relationships between customers and suppliers, enabling the new development of new business models for competitors, and fostering the roles of new participants as complementors.\(^{124}\)

The underlying theme of the Delta model is that strategy - in both the new and old economy - may be, and in many cases should be, formulated on the basis of bonding as opposed to rivalry. It recognizes and describes how customer and complementor relationships can create strong bonds to the customer. It requires an orientation of the firm so that it acquires and acts on a deep understanding of its customer's activities and its complementors economics.\(^{125}\)

Figure 13-3: The Delta Model – Three Distinct Strategic Options, graphically illustrates the three strategic options which encompass the Delta Model. These different positionings are: Best Product, Total Customer Satisfaction and Customer Lock-In.

Companies targeting the Best-Product draw their customers in through the characteristics of their product typically by providing a low-cost solution or its differentiation. Ultimately, the products become a commodity and become entangled in price wars or low cost imitation products.

Companies positioning themselves for Total Customer Satisfaction tend to base their strategy on a strong bond with their customer. Their products or services are dedicated to improving their customer relationship which, in the long run, is a strong bond from which present and future business depends.

The final positioning that a company can develop is a strategy around the Customer Lock-In Strategy. This approach includes the ‘extended enterprise’ and provides the largest strategic opportunity for the company. It is here that a company concentrates on developing a new ecosystem based upon the company, its customers, its suppliers and its complementors (where complementor is a firm which offers a product or service that enhances the company’s current product or service). This is the key strategy which is based upon identifying, attracting and nurturing the relationships of the complementors for the ultimate goal of attracting, satisfying and retaining the customer.


\(^{124}\) Hax, Arnoldo L., Wilde, Dean L, II; The Delta Project: Discovering New Sources of Profitability in a Networked Economy\(^{2}\); Palgrave, 2001, xiv.

\(^{125}\) Hax, Arnoldo L., Wilde, Dean L, II; The Delta Project: Discovering New Sources of Profitability in a Networked Economy\(^{2}\); Palgrave, 2001, xv.
This new strategy requires a paradigm shift from our traditional competitive thinking. Applying the Delta Model to our previous discussion regarding IT investment, we are able to describe the different strategic positionings as those that require internal support (the Best Product), those that require customer and supplier support (Total Customer Solutions) and those that are have a total network deployment (System Lock-In).

Throughout this work, the reader should be able to quickly identify that that the eRecruiting industry has spent the past couple years concentrating on a Best Product strategy where an emergence of a vast array of companies each specializing in their own niche of the online recruiting market evolved. Like a ‘desert waiting for rain’ these companies awaited their recognition of securing their positioning in this new emerging channel. Though what ended up happening was that so many competitors emerged (i.e. because of the low cost to enter) and the market became highly fragmented.

Soon companies began to migrate towards Total Customer Solutions which for some; combined various ‘best product’ solutions into one (i.e. spiders, third party alliances). Unfortunately, this positioning didn’t have sufficient measurements to fully understand what solutions were most preferred by the customer. It lacked the fundamental principal for this strategy: that the products and services are dedicated to improving the customers’ relationship or bond with the company. They were driven by maximizing the return for the service provider, not the customer. Based on this observation, we can see from Figure 13-5: Bonding and the Triangle, the industry migrated to redefining the Customer Experience, but not towards either satisfying horizontal breadth or integrating the customer. Here begins the challenge for eRecruiting.
Finally, value is ultimately increased through the System Lock-In position where competition is based upon system economics. Figure 13-6: Using the Delta Model to Increase Value best illustrates the transformation of companies that target and participate in this strategy. Strategically positioning a company for System Lock-In allows the company to create a network of third party complementors, from which, the customer will begin to utilize those products with the most complementors.

Now we can begin our discussion about outsourcing/out-tasking the recruiting activities.

Figure 13-5: Bonding and the Triangle
13.5.2 Achieving System Lock-In through Outsourcing/Out-tasking

We ended the previous section with an observation that the online recruiting market is still maturing, from a strategic perspective, where the ultimate goal for a company participating in this channel is the System Lock-In phase of the Delta Model. The reader may be thinking that this sounds very similar to the Networked Virtual Organization discussed previously.

Comparing the definitions:

Simply stated, an NVO is a business model that an entity (that is, a single company or organization) adopts for working with two or more external entities to create a new “virtual entity” to deliver either a specific product or service. One of the requirements of an NVO is a network foundation that allows these connections between entities. In essence, the organization that adopts an NVO business model has the competencies to create and manage a networked virtual ecosystem of companies that work together for a specific purpose, for a specific period of time, to deliver products or services. When executed properly, an NVO business model increases productivity and reduces costs through the continuous improvement of core-versus-context assessments. Company decision makers have always known they were not good at all aspects of operating a business. 126

System Lock-In concerns itself with nurturing, attracting, and retaining ‘complementors’. It is concerned with all the important players in the systems that contribute to the creation of economic value for a particular customer. There are two necessary conditions to create System Lock-In: i) the existence of increasing marginal returns and ii) external network effects. Increasing marginal returns reflect how the value of the product or service increases with increased users and usage. Network externalities reflect the fact that attractiveness of the product is external and often the function of investments by others, particularly the complementors and customers. Moreover, this technology has disaggregated industries creating a network of complex interactions among fragmented and specialized participants that almost mandates the user of common standards to ensure effective exchanges. There are three ways to achieve System Lock-In: Proprietary Standard, Dominant Exchange, and Restricted Access.\(^{127}\)

Whether you are Cisco or the authors of the Delta Project, there is an agreement that concentrating on your ‘core competency’ and partnering with other companies for the remaining portions of the business are the way to succeed in the internet driven economy.

Having said that, why wouldn’t we outsource the recruiting function for a company? Taking this proposal even farther, doesn’t it make excellent sense to turn that outsourcing into out-tasking (where all segments of the process are engrained into both cultures)? Or another way to ask the same question: Is recruiting a ‘core-competency’ of our company?

### 13.5.3 The Outsourcing Industry

According to the March 2003 report by International Data Corporation (IDC), U.S. corporate and government spending on IS outsourcing services is expected to grow to $43 billion by 2007. This is up from the $30 billion spending which occurred in 2002. With the recent internet bubble bursting and economic downturn, this shouldn’t be surprising. Companies are concentrating on what they do best and looking for outsourcing providers for anything they can outsource.

![Figure 13-7: US Corporate and Gov. Spending on IS Outsourcing Services (2002 & 2007)](image_url)

Worldwide the outsourcing projections are just as positive. IDC predicts that by 2007, worldwide information systems outsourcing spending is expected to reach $99 billion (more than double the U.S. projections). This is compared to the 2002 worldwide spending of $68 billion.

![Figure 13-8: Worldwide Information Systems (IS) Outsourcing Spending (2002 & 2007)](image_url)

So what are the expected benefits of outsourcing recruiting? The direct results will be improved cycle time, decreased cost, and stronger relationship management between the internal recruiters and both their internal clients and active candidates. Out-tasking, an extension of outsourcing increases these benefits further.

13.5.4 What happens when recruiting is outsourced or out-tasked?

"Hold the press!" Didn't we say earlier that when recruiting is treated like "guns for hire" it didn't work? Yes we did. Kudos to the astute reader. However, it is our belief that the inherent failure of the 'gun's for hire' system was the reward system. We are all aware, especially the HR organizations, that you get what you reward. Therefore, the reward system for this type of service needs to be change. How? ... It is unclear.

Additionally, internal management of services and activities tend not to be managed as well as our external relationships. Since the late eighties there has been an aggressive push towards managing our service providers and sub-contractors more efficiently. Most of which started to improve as more and more companies jumped on the Capability Maturity Model band wagon from the Software Engineering Institute. Audits tended to reveal this area, was the most deficient, which in turn increased the awareness, measurement, tracking and overall performance of this business segment. Sub-contract management courses, seminars, books and evaluation guidelines were propagated through-out the industry.

Experience has also shown us that internal organizations over time develop an informal network which is often the source of political and bureaucratic inefficiencies; many of which can be categorized as the classic 'principal agent problem'.

Today's focus and attention on improving corporate governance will, over-time, correct some of these inefficiencies. We can help expedite these changes, as well as improving the general profitability and operation of the company, by ensuring proper measurement processes are put in place. Unlike the current internal recruiting reward system, when an external company understands they will be measured with respect to a strict set of criteria and that their success will directly impact their contract, they tend to aspire to such standards. Often, and in many cases, companies tend to drive the bar higher and higher as a matter of natural competition. A characteristic which often tends to be lost or forgotten as corporations grow larger and more lethargic.

Managing these external sources became even more effective when expectations were formalized through a written contract. Service level agreements, as they are called by some, became known within the industry as the "performance contract for success" and potentially a beginning of a lasting relationship.

A service level agreement is a formal contract where the roles and responsibilities of the managers and the recruiters are spelled out. For each deliverable, there is a measurement element which looks at performance in terms of time, quality, volume, cost, and satisfaction level. These measures (coupled with rewards) assure that both sides to the agreement do their part.

Service level agreements have worked in all aspects of business. They have been most effective within the service industries including the human resources discipline.

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129 www.drsullivan.com, "Gaining Respect through Service Level Agreements in Recruiting" by Dr. John Sullivan, Dr. Sullivan; available from http://64.87.31.133/articles/2001/030501.htm ; Internet; accessed 22, March, 2003.
Service level agreements are widely used in many customer service functions. HP was a pioneer in offering service level agreements in HR. Starting in the 1990s, managers were given the opportunity to choose between several different levels of HR service. From the "Cadillac level" to the "VW bug" minimum bare bones level. Managers could pay less in overhead if they needed fewer services. In fact managers with fewer employee relations problems and turnover issues actually needed less HR help because they did a great job as managers. Why not reward managers (by cutting their costs) for being an effective people manager? Sun Micro went even further in providing "choices." Its fee-for-service approach allowed some managers to choose to utilize no internal HR services at all in some areas and even to go outside for the HR services they wanted.\(^{130}\)

With the increase in outsourcing, it is clear, that implementing the correct governance and measurement system will significantly improve the opportunity for success. Best results are achieved when an organization aspires to a NVO adoption and the use of out-tasking. It is through this engrained relationship that partnering is most successful.

As a guideline, we would like to recommend that outsourcing/out-tasking recruiting be treated the same as other businesses partnerships such as supply chain management. An excellent book that defines how to measure, improve quality and the relationship with your-supplier is "The Science of High-Performance Supplier Management: A Systematic Approach to Improving Procurement Costs, Quality and Relationships" by Randy A. Moore.\(^{131}\)

Within his book, the author lays down the ground work for supplier management by stating that the objective of a supplier management program is to improve the value of the supplier’s performance. This is carried out through the Supplier Performance Management (SPM) program which requires an organization to achieve four basic objectives:

1. Aligning procurement strategies with organizational objectives so that maximum value is derived out of each relationship.
2. Communicate requirements clearly such that the supplier understands the expectations and the deliverables are.
3. Manage the process so that the supplier meets expectations and understands their need for superior performance.
4. Integrate the company/department objectives into every contract.

Additionally, the supplier should be managed with performance based initiatives. These initiatives should be managed by assigning and monitoring the responsibilities and reviewed often.

It is our belief that when various portions of recruiting are outsourced, and furthermore out-tasked, in this manner their success will be far superior then the current performance of most companies.

In the book, The ROI of Human Capital, various advantages and disadvantages of outsourcing human resource activities are discussed. A summary of these tradeoffs are listed below.

\(^{130}\) www.drsullivan.com, "Gaining Respect through Service Level Agreements in Recruiting" by Dr. John Sullivan, Dr. Sullivan; available from http://64.87.31.133/articles/2001/030501.htm; Internet; accessed 22, March, 2003.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usually the cost of providing the service is reduced</td>
<td>It is not a panacea; sometimes it doesn’t work due to poor planning or selection of a vendor that can’t perform to expectations</td>
</tr>
<tr>
<td>Don’t need to make large capital investments in computers and software</td>
<td>Lose control and contact with employees</td>
</tr>
<tr>
<td>Easier to hire a vendor than prepare to deliver the service from in-house</td>
<td>Some HR personnel usually lose their jobs</td>
</tr>
<tr>
<td>Cut space and equipment needs</td>
<td>Inadequate vendors cause employee morale problems</td>
</tr>
<tr>
<td>Give the work to an organization that has the core competence to handle it</td>
<td>Need to hire an attorney to review the contract and possibly handle contract negotiations</td>
</tr>
<tr>
<td>No need to hire and manage scarce, highly paid experts</td>
<td>Risk fines if the vendor does not comply with government regulations</td>
</tr>
</tbody>
</table>

Source: ROI Human Capital

Figure 13-9: Advantages and disadvantages of outsourcing within HR

Not all aspects of recruiting should be outsourced, however, many of the manual tasks can be. Doing so will reduced a significant amount of effort being spent on laborious tasks, leaving more time to improve the strategic operations of managing the human capital.

Of course, if a company does decide to maintain the cost of having their recruiting function performed internally, then it must manage this organization the same as if they would for an external supplier. This would include implementing, enforcing, and frequently evaluating the organizations performance through a ‘cost accounting based methodology’ tied in conjunction to performance based initiatives. While there are no guarantees this will produce the most optimal results for the company, it will ensure that monetary expenditures will improve, thereby aligning the organizations performance with the companies’ customers expectations, and most importantly ensure that the dam is created around the escaping profits and expenses. Again, if you don’t measure the performance and cost allocation how can one expect to successfully manage the outcome?

Finally, a natural result of reaching System Lock-In or a NVO business model is that this new industry segment will become less fragmented. EcoSystems will form on the basis of survival and a consolidation of companies will occur. Survival will then become a matter of developing the most and best complementor partnerships/solutions. Less choices, better solutions/services, and improved expertise … wouldn’t that be a nice effect.

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13.6 Metrics Reporting

We have heard it time and time again, throughout this work. You must be able to measure it if you expect to manage it. Therefore, not much needs to be said except the need to develop, collect and report on performance benchmarks throughout the whole recruiting process. As Dr. John Sullivan states: "After over 30 years of studying HR departments I have found that the largest single difference between a great HR department and an average one, is the extensive use of metrics."\(^{132}\)

Collecting metrics is only the beginning. Historical trending provides the ultimate measurement probe into the health of the human capital efforts. History provides enough "points on the graph" to make sound decisions of what is happening to the organization(s) in the long run. Looking at one point in isolation tells us very little about whether our efforts are getting better or worse.

Of course, one problem that might result is the creation of too many measurement points. Consideration should be given to define those that are essential for optimal performance. The Staffing Metrics Toolkit v2.75\(^{133}\) and the "The ROI of Human Capital", provides an excellent summary of some key metrics which should be collected. Some of these metrics can be benchmarked against industry trends which may be found within the Staffing Metrics Benchmark Report by Staffing.org. Another excellent source, for those looking for a less technical-yet complete explanation, will find the book "HR Metrics: The World Class Way" by Dr. John Sullivan, most useful.

Whether a company benchmarks itself against those trends found within the Staffing Metrics Benchmark Report, or other companies, the important task for any recruiting organization is to establish a historical benchmark which can be used to monitor the long term tendencies for its human capital department. The final step is to take the collected data and develop both short term and long term strategic plans which are proactively monitored and reported on regularly. Often, companies take a reactive approach, or similarly, do nothing with the data collect. Metrics by themselves have little value unless they are put into use on a regular basis. This is a common problem with many measurement efforts. Data is often collected, but little or – in many cases, nothing is done with them.\(^{134}\) Then they wonder what happen and/or try to set a reactive course change for a “ship which is sailing out of control”.

Today, the internet world has transformed itself into a consolidated perspective of information called a portal. According to Netlingo: The Internet Dictionary, a portal is defined to be:

A site featuring a suite of commonly used services, serving as a starting point and frequent gateway to the Web (Web portal) or a niche topic (vertical portal). Web portal services often include a search engine or directory, news, email, stock quotes, maps, forums, chat, shopping, and options for customization. These are only some of the most frequently offered services; large portals often include dozens or hundreds of bundled services. Portals are one-stop destinations.\(^{135}\)

Whether your needs are shopping, news, weather, or internal company human resource information, the portal has been a very effective tool for consolidating the wealth of information available. Overtime, the portal emerged into a new form of a management tool called a ‘dashboard’. The concept of a dashboard, similar to that of a car dashboard, was to provide a set of “critical gauges” by which the department, company or organization could be managed from. Dashboards have been emerging throughout companies for the past several years. An example of a HR dashboard can be found below.

\(^{132}\) Dr. John Sullivan, HR Metrics: The World Class Way; Kennedy Information, 2003, 9.


\(^{134}\) Dr. John Sullivan, HR Metrics: The World Class Way; Kennedy Information, 2003, 10.

### Staffing Dashboard

<table>
<thead>
<tr>
<th>Metric</th>
<th>Last Year</th>
<th>3-Month</th>
<th>3-Month Running Average</th>
<th>Current</th>
<th>Warning Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>New-Hire Performance (based on performance appraisal scores at 6 months)</td>
<td>3.4</td>
<td>3.6</td>
<td>3.78</td>
<td>3.65</td>
<td>3.5</td>
</tr>
<tr>
<td>Cost-per-Hire (Dollars)</td>
<td>5,800</td>
<td>4,250</td>
<td>4,600</td>
<td>4,700</td>
<td>5,000</td>
</tr>
<tr>
<td>Time to Fill (Days)</td>
<td>61</td>
<td>37</td>
<td>33</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>Time-to-Fill Key Positions (Days)</td>
<td>37</td>
<td>26</td>
<td>21</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Time-to-Productivity (elapsed time from date of hire to time when minimum output achieved)</td>
<td>45</td>
<td>42</td>
<td>44</td>
<td>43</td>
<td>45</td>
</tr>
<tr>
<td>% of Hires from Referrals</td>
<td>32</td>
<td>36</td>
<td>38</td>
<td>41</td>
<td>40</td>
</tr>
<tr>
<td>% of Hires from Web</td>
<td>35</td>
<td>37</td>
<td>34</td>
<td>32</td>
<td>50</td>
</tr>
<tr>
<td>Turnover Rate of Top Performers</td>
<td>6.8</td>
<td>4.7</td>
<td>4.9</td>
<td>5.1</td>
<td>5</td>
</tr>
</tbody>
</table>

**Figure 13-10: Sample Recruiting Dashboard**

Below is a list of metrics we have discovered that those in the industry feel are useful to collect: Most of these metrics can be found either in the Staffing Benchmarks Report, "The ROI of Human Capital" or "HR Metrics: The World Class Way".

**Traditional Metrics (often prone to error or misleading results)**

- Cost per hire
- Time To Fill
- Time To Start
- Budget allocation for recruiting efforts
- Budget allocation per recruiting channel
- Measuring employee turnover
Recommended Metrics

- Quality of candidates/new hire received from the recruiting channels (previously discussed and performed at periodic intervals)
- Actual Time to Start (# of days when recruiting started and when position was filled)
- Contracted Time to start (# of days when recruiting started and when recruiting staff & manager agree it should be filled by)
- Customer Satisfaction (average hiring manager ration based upon various forms requires an pre determined agreement between affected parties)
- Efficiency Ratio (Efficiency Ratio = Total Staffing Costs / Total Recruiting Compensation)
- Total Staffing Costs (Sum of internal, external recruiting costs, signing bonus, travel, relocation and visa costs)
- Total Recruiting Compensation (Sum of all annual base compensation of all external positions)
- % of resumes received from various recruiting channels
- % of hires from the various recruiting channels
- Cost of Quality
- Retention rate of the new hires
- % of recruiting which is college related
- % of hiring which is college related
- External/Internal/College Accession Rate
- External/Internal/College Add Rate
- External/Internal/College Replacement Rate
- External Hires Offer Acceptance Rate
- College Hires Offer Acceptance Rate
- Sign-on Bonus Percentage
- Supervisor/Executive Sign-on Bonus Percentage
- Sign-on Bonus Factor
- Supervisor/Executive Sign-on Bonus Factor
Strategic Metrics

As we will see in later chapters, the strategic charter of the human resources/recruiting department is instrumental to its success. Typically, strategic measurements are passed over, due to the reactive nature of most organizations. Despite this neglect, it is important the reader understands the long-term effects such behaviors may have toward their company. To assist in this understanding, we will provide a bit more detail with respect to these measurements and their effects. The reader is encouraged to learn more about these methods through the references noted. Some key strategic measurements are:

- Total compensation recruited
- How efficient should your recruiting operations be
- Calculating the cost of a vacant position

Total Compensation Recruited

So how large should the total recruiting budget be? If your company is like most, this number is often determined through a backward, yet very simple, calculation. Typically, the method for determining the Total Compensation Recruited is calculated by multiplying the average starting base compensation by the number of new starting employees. It is the best measure of recruiting productivity. A sample table which can be used to benchmark this cost is found below. Overall, we can see the importance of using this measurement and how it significantly contributes to the company’s bottom line.

<table>
<thead>
<tr>
<th>Recruited</th>
<th>Open</th>
<th>Image</th>
<th>Comp</th>
<th>Internal</th>
<th>External</th>
<th>Staffing</th>
<th>TNR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alice</td>
<td>56</td>
<td>28</td>
<td>31 M</td>
<td>6.2%</td>
<td>14.1%</td>
<td>20.3%</td>
<td>109</td>
</tr>
<tr>
<td>Dan</td>
<td>12</td>
<td>22</td>
<td>11 M</td>
<td>0.1%</td>
<td>18.8%</td>
<td>24.9%</td>
<td>91</td>
</tr>
<tr>
<td>Gina</td>
<td>17</td>
<td>29</td>
<td>17 M</td>
<td>5.8%</td>
<td>9.9%</td>
<td>15.6%</td>
<td>97</td>
</tr>
<tr>
<td>Derek</td>
<td>44</td>
<td>31</td>
<td>11 M</td>
<td>5.6%</td>
<td>11.4%</td>
<td>17.0%</td>
<td>93</td>
</tr>
<tr>
<td>Total</td>
<td>206</td>
<td>109</td>
<td>15.5K</td>
<td>5.5%</td>
<td>13.3%</td>
<td>19.2%</td>
<td>96</td>
</tr>
</tbody>
</table>

Source: Staffing.org

Figure 13-11: Sample Total Compensation Recruited

How efficient should your recruiting operations be?

In earlier chapters we highlighted the fact the most recruiting organizations are under-staffed and therefore have difficulties scaling to the reactive demands that are placed by their customers. So naturally, one might ask, what is the correct number of recruiters an organization should have to be successful? Of course, that depends on how efficient or proactive the organization is with respect to the topics already addressed. However, the following reference provides a general “rule-of-thumb” for most companies.

While there is no one formula to determine how many recruiters an organization should have, the next table indicates how the parameters can be established and evaluated.

The number of recruiters selected should be best for the staffing delivery model, long term recruiting projections, and organizations preferences. If the recruiting is relatively short term in nature it would suggest outsourcing much of the work. Increasing the number of recruiters may be appropriate when there are a significant number of positions to be filled over a long period of time.

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As an example let's target 100 new hires a month for at least forty months at an average salary of $50,000 and a staffing efficiency ratio of no more than 15%. This gives us up to $750,000 (100 hires x $50,000 x 15%) a month to spend on recruiters and or other recruiting resources.\(^{137}\)

<table>
<thead>
<tr>
<th>Recruiters</th>
<th>Average</th>
<th>Total Cost</th>
<th>Cost/Recruiter</th>
<th>Cost/Recruiter %</th>
<th>Staffing Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>50</td>
<td>$2,500</td>
<td>12.5%</td>
<td>12.5%</td>
<td>15.0%</td>
</tr>
<tr>
<td>8</td>
<td>125</td>
<td>$1,000</td>
<td>10.0%</td>
<td>5.0%</td>
<td>15.0%</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>$1,000</td>
<td>10.0%</td>
<td>10.0%</td>
<td>15.0%</td>
</tr>
</tbody>
</table>

Source: Staffing.org

Figure 13-12: Sample Total Number of Recruiters Needed

**Cost of a Vacant Position**

Calculating the cost of a vacant position tends to be overlooked by most organizations. A quick “back of the napkin” calculation shows that this cost alone can have substantial financial effects for the organizations.

The cost (cost of a vacant position) can be significant: anywhere from $7,000 to $50,000 per day for an average Fortune 500 position. Key leadership positions may cost as much as a million dollars per week. Couple these amounts with the fact that the length of many vacancies often exceeds 100 days, and you are talking some serious financial impacts ($7k x 100 days = $700k).\(^{138}\)

**Too many things to measure … now what?**

A natural by product when collecting measurements it that too many metrics may be defined and/or implemented. While in the long run, the end result may be a subset of these initial benchmarks, it is better to have too many and then reduce; versus not enough and still working on trying to identifying which ones to use. Cost-of-quality can be used both to compare the performance of online recruiting to that of other methods and to identify those facets of online recruiting which generate high-caliber candidates at the lowest cost.\(^{139}\)

The caliber of the candidates identified by online recruiting activity is also a key measure of its effectiveness. Ironically, there has been much discussion among recruiters lately about the "cost of a bad hire." While the impact -- on productivity or production and in terms of overtime and replacement recruiting -- of hiring someone who doesn't work out can certainly be measured, I think it's far more useful to focus on a metric I call the "cost-of-quality."\(^{140}\)

**13.7 IT Governance**

Recall from Chapter 10 Measuring the ROI, corporate governance of IT investments is a must. While our intent is not to cover the different methods of IT governance, it is to reinforce the need to develop an IT governance policy or process. Many unsuccessful IT projects could have avoided being cancelled, or provided a better return, if proper IT governance was implemented. IT investments should be measured and monitored from the beginning, through their


\(^{138}\) Dr. John Sullivan, HR Metrics: The World Class Way; Kennedy Information, 2003, 63.


development and subsequent post deployment. These measurements should include senior management, end users and all teams responsible for its success.

One problem some organizations typically face is an inability to integrate systems. "It's the classic case of people seeing the trees but not the forest," says Thomas Park, a principal at consulting firm Booz Allen Hamilton. What's more, in this model individual business units are inclined to spend money on systems that don't necessarily provide the biggest returns and benefits for the enterprise.

Business leaders must understand how different scenarios affect business and IT alignment. "Governance requires more than a steering committee that gets together to look at spending and decides which projects are funded in a particular year," says Park. "It means, at every level of the organization, understanding initiatives and viewing IT and business goals in the aggregate."

Establishing clearly articulated procedures and policies is the key to making IT governance work. "When people and departments have clearly defined rules and responsibilities, they can eliminate politics, finger pointing, and problems," says Anne Barrett, a consultant in Cisco Systems Incorporated's IBSG. "Organizations can implement technology far more effectively."

Like most things on the internet, if one looks hard enough, they can find a web site dedicated to the topic they are looking for. The same can be said for IT governance, which not only has its own web site (www.itgovernance.org), but also a dedicated institute called the IT Governance Institute. According to the IT Governance Institute, the purpose of IT governance is to direct IT endeavors, to ensure that it's performance meets the following objectives:

- For IT to be aligned with the enterprise and realize the promised benefits
- For IT to enable the enterprise by exploiting opportunities and maximizing benefits
- For IT resources to be used responsibly
- For IT-related risks to be managed appropriately

IT Governance success depends on the company's ability to continually monitor, prioritize and measure its policies and processes. Figure 13-13: IT Governance Model, graphically represents the inputs, outputs and processes required for a successful IT governance model.

![Figure 13-13: IT Governance Model](source: IT Governance.org)

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13.8 Process Measurement / Certification

In the eighties, the software industry went through a tremendous evolution. Quality became the underlying theme of most companies. Remerging from this era were the institutionalization of process certification methodologies such as ISO 9000 and Carnegie Mellon’s Capability Maturity Model from the Software Engineering Institute (CMM-SEI).

While ISO 9000+ certification was more complex and spanned more business segments, it left little to be desired towards a path of improving the quality of the end product. Some would argue that without a method to achieve better product quality all that was occurring was a ‘rubber stamp’ for following some type of process.

Having said that, we are a strong believer and proponent of the CMM-SEI model. It offers a consistent measurement process with steps to achieve the next level of certification from the initial level (SEI Level 1) through the highest level (SEI Level 5). Even more important, is that certification could only be done by external auditors which were themselves certified in CMM.

Through out our research, we were unable to find a similar type model, involving external auditors, for the human capital field. A well known, self-audit, methodology is that of Donald Kirkpatrick known as the “Kirkpatrick Model”. The “Kirkpatrick Model” has become one of the most widely used approaches to training evaluation in the corporate, government, and academic worlds.

Donald Kirkpatrick’s goal was to create a hierarchical model that would span many uses. This model has become the standard guide for assessment of training programs and this is because the lowest level is almost universally included in adult training across many fields.\(^\text{143}\)

- **Level 1 (Reaction)** - measure the participants reaction to the training material.
- **Level 2 (Learning)** - measures if the participants learned the material presented in the training program; did the participants actually learn the knowledge, skills, and attitudes the program was supposed to teach?
- **Level 3 (Behavior)** - measures the participants change in behavior as a result of the training; whether or not the participants retained the knowledge or skills and transferred them back.
- **Level 4 (Results)** - measures the impact of training on the effectiveness of the organization

While the “Kirkpatrick Model” offered an excellent hierarchy system for measuring current training, its major drawback was that of being a ‘self-audit’ model. This meant that corporations or institutions could audit themselves with respect to their performance. When rewards were attached for achieving levels, one can begin to see how a ‘self-audit’ becomes its own self reinforcing loop for success.

With a certification process, in particular and external audit process, we believe the quality of output delivered by the vast array of recruiting institutions will significantly improve. Certification branding, like other industries, will then be a pre-requisite before doing business with companies. History has showed us, then nothing but positive results are achieved in those industries where such a certification processes was deployed. Why should the human capital side of the business (a company’s most valuable asset) be any different?

One final note, for a certification process within the field of human capital management to be successful, the company must believe that the recruiting is an instrumental and important aspect of the organization. A certification process will not be successful if the company views recruiting as an entry level occupation or short term career path.

Our apologies to those in the field, who may be aware of a Human Resource or Human Capital certification process which hasn’t been mentioned. In the event, that an external audit process, doesn’t exist we would like to provide a short preview of the SEI CMM model.

13.8.1 SEI – CMM in a Nutshell

Within this section we will provide a brief overview of the Software Engineering Institutes Capability Maturity Model. Since the eighties a significant amount of material has been written in regards to this subject. SEI’s web site is an excellent starting point for those that wish to learn more (http://www.sei.cmu.edu/).

In its simplest form, the Capability Maturity Model is a methodology by which a company’s processes are classified by their maturity level. It additionally provides a framework for improving their maturity, auditing and reporting. This is done through a consistent manner for reviewing and evaluating the company’s current status through a standardized ‘maturity’ grading system.

Levels of maturity are defined as:

- Level 1 Maturity – Initial - Inconsistent management practices
- Level 2 Maturity – Repeatable - Repeatable practices and consistent project management
- Level 3 Maturity – Defined - Process management consists of common engineering processes through the company
- Level 4 Maturity – Quantitatively Managed – companies capability is continuously measured and managed through quantitative benchmarking and control mechanisms
- Level 5 Maturity – Optimizing – Companies processes are continuously improved through changing processes

The Five Maturity Levels of the Capability Maturity Model

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**Figure 13-14: Five Levels of SEI Maturity**

Figure 13-14: Five Levels of SEI Maturity, highlights the defined levels of maturity as presented through the SEI CMM model. Additionally, Figure 13-15: Benefits of SEI CMM, summarizes the generic benefits which can be achieved by graduating to the next maturity level. “By creating a set of standards, a company can not only control information technology more effectively but also business processes,” Sifonis says. The end result is usually lower costs, greater productivity, improved ROI, and reduced total cost of ownership.\(^{144}\)

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While the basic framework may be more applicable for development organizations, the principle and certification process can be adopted for any type of industry. Are the processes repeatable? Are measurements being used to adjust the business goals, strategies and agreed upon targets? These are only a few of the benchmarking criteria's that can result from adopting such a model.

<table>
<thead>
<tr>
<th>Benefits of Capability Maturity Model Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 5: Optimizing</td>
</tr>
<tr>
<td>Continuously targeting improvements required to meet business objectives</td>
</tr>
<tr>
<td>Level 4: Qingently Managed</td>
</tr>
<tr>
<td>Predictable results, knowledge of factory causes varying and trace</td>
</tr>
<tr>
<td>Level 3: Defined</td>
</tr>
<tr>
<td>Meeting cost and functionality targets as well as improved quality</td>
</tr>
<tr>
<td>Level 2: Repeatable</td>
</tr>
<tr>
<td>Meeting schedules and reduced turnaround resulting from less overtime</td>
</tr>
<tr>
<td>Level 1: Initial</td>
</tr>
<tr>
<td>No benefits, inconsistency, schedule and budget overruns and defective applications</td>
</tr>
</tbody>
</table>

*Source: Teragold*

Figure 13-15: Benefits of SEI CMM

### 13.9 Aligning eRecruiting Strategy with Corporate Goals

"Companies fail because they're under the wrong impression that technology alone will do the trick. Technology is a critical enabling component—and you can't complete a transformation without it—but companies will only realize substantial benefits when their transformation efforts are in response to a clear business opportunity that is core to the organization's success."

Like any large scale initiative within a company, the initiative must be aligned with one or more of the corporate goals identified by executive management. Ensuring this direct contribution will provide the necessary visibility and increase the success of its deployment. All employees from the top down, will provide assistance in ensuring a successful adoption. Besides not being able to measure the success, the second worst thing that could happen, is that the contributing departments fail to use the new eRecruiting technology because it doesn't contribute to their needs.

In most cases, the deployment of an IT based eRecruiting strategy is dependent upon the technology experts typically found within the CIO's department. This raises another aspect of aligning an eRecruiting strategy with the corporate goals. Successful CIO's usually play four roles to ensure better alignment:

- Strategies who helps define the structure of the business
- Business advisor or peer who interfaces with business unit leads (translating the languages of business and technology)
- IT leader who is held accountable for skills, training, and assets within the IT department
- Chief architect for business IT environment that optimizes investments and fuels growth

An important role, that shouldn't go unnoticed before defining and deploying an IT eRecruiting strategy is that there must be a hard interface to the business units (if they exist). Too many times, companies deploy what they believe to be technology needed by all business units (throughout the entire company) only to be met with a mutiny by these organizations. Not only did the new technology drastically miss their needs, it required additional overhead with zero return. Companies can avoid adding their IT eRecruiting strategy to the disappointing statistic of failed IT projects, by including the business units in the defining, deploying and ownership phases of the new initiatives. Gaining their involvement early on will ensure a greater success once the project is deployed.

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Typically, departments are required to provide both short-term and long-term strategies and project reports within a company. These projects are reviewed on an ongoing basis and adjusted based upon the company’s strategic priorities and/or resources. Similarly, the human capital department should participate in these short-term and even more importantly long-term plans and peer-reviews. Below is one viewpoint with regards to this approach.

In the immediate future, all Recruiting Operations will be required (by market forces) to view their efforts on a five-year horizon line. The operation question has become: "What are your employment requirements over the next five years?" In order to guarantee the availability of an adequate (and adequately trained) workforce, Recruiting Organizations will increasingly build broad talent pools that can be drawn from over time... knowing when human assets are required when and where allows the cultivation of value-based relationships... The language of HR Departments will evolve to include Human Capital Management, Human Inventory Management and Minus 30 Recruiting (the idea that a candidate can be in an orientation program in advance of the physical requirement). 147

Summarizing, we feel that aligning an eRecruiting strategy with the corporate goals and involving all affected parties (i.e. CIO, business units, HR, executive management, all levels of participation, etc) will effectively reduce costs, create competitive advantage, spur innovation, increase flexibility and responsiveness, drive quality improvements, enhance customer service, and improve communication. Moreover, without a high degree of alignment, it's difficult to gain maximum competitive advantage. 148

Your company achieves workforce optimization when its management and use of human capital–intellectual assets, employees, contingent labor, or contractors—are fully aligned with critical corporate initiatives. This means having the intelligence to know where and when to deploy assets; pursuing proactive information delivery to ensure ongoing growth and usefulness of intellectual capital; and developing competitive, personalized compensation strategies designed to retain talent. 149

13.10 Company Culture

It is important to note, that a significant aspect of any corporation is its culture. Many companies founding culture and values have changed for the worst during the rapid expansion of the internet boom.

Can eRecruiting control this change? Probably not, though it should be a major concern of any recruiting department to ensure that candidates possess the skills and values necessary to maintain their company’s culture.

Sustaining a corporate culture means having to recruit people who get the culture. New employees have to fit in. The best way to get compatible people is to encourage everyone to recruit. It is also a good idea to keep a "farm team" on hand. These are people whom you think would be good fits if there were an appropriate opening available. 150

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According to a recent study conducted by ExecuNet (published in the March 31, 2002 issue of InfoWorld) from which they polled 1,185 executives, approximately 20% are concerned about their careers because the company's culture or leadership are not a good match.

Figure 13-16: Reasons to worry about your job or career

It is our belief that changing the reward system, as it is today, will improve the likelihood that newly hired candidates fit better into the company culture. The 'long term' perspective should self-correct the inadequacies found within today's system.
14 Selected Books

This section is a summary of the books (subset of those referenced) which we found highlighting for the reader.


The HR Scorecard: Linking People, Strategy, and Performance; by Brian E. Becker, Mark A. Huselid, and Dave Ulrich; Harvard Business School, 2001

The Delta Project: Discovering New Sources of Profitability in a Networked Economy; by Hax, Arnoldo L., Wilde, Dean I., II; Palgrave, 2001

The Net Impact Study: The Projected Economic Benefits of the Internet In The United States, United Kingdom, France and German; by Varian, Hal; Litan, Robert E.; Elder, Andrew; and Shutter, Jay; 2002, v2.0.

The ROI of Human Capital: Measuring the Economic Value of Employee Performances; by Jac Fitz-enz; Amacom, 2000

The Science of High-Performance Supplier Management: A Systematic Approach to Improving Procurement Costs, Quality and Relationships; by Moore, Randy A.; Amacom, 2002

The War For Talent; by Ed Michaels, Helen Handfield-Jones, and Beth Axelrod ; Harvard Business School Press, 2001


Weddle's 2002(or 2003) Directory of Employment-Related Internet Sites, by Peter Weddle, Weddle's, 2002

Weddle's Job-Seeker's Guide to Employment Web Sites 2002 (or 2003), by Peter Weddle, Weddle's, 2002

Weddle's Recruiter's Guide to Associations 2002 (or 2003), by Peter Weddle, Weddle's, 2002

Weddle's Recruiter's Guide to Employment Web Sites 2002 (or 2003), by Peter Weddle, Weddle's, 2002
15 Selected Articles

This section is a summary of the articles (subset of those referenced) which we found highlighting for the reader.


“2002 Staffing Metrics Benchmark Report”; by Staffing.org, 2002

“Staffing Metrics Toolkit v2.75”; by Staffing.org, 2002
16 Appendix

16.1 Detailed problem description: Monster.com and Private Label corporate sites

Corporations with private label accounts at Monster.com appear to cloak their involvement with Monster. Meanwhile, the corporate affiliate sites require users to accept cookies — all from a domain called "newjobs."

For example, when job seekers apply online for a job at the Blockbuster.com website, the resume goes to blockbuster.newjobs.com.

When job seekers apply for an Adecco job online directly from the Adecco corporate website, the resume goes to jobssearch.adecco2.newjobs.com.

In every instance, the domain "new jobs" is involved in some way. Even when job seekers merely look at jobs at the Sony Electronics website, the URL in the browser window reads http://sel.newjobs.com/.

Packet sniffing the transactions and a series of ping and traceroute tests conducted on the corporate websites revealed that all of the corporate websites using "newjobs" domains, like blockbuster.newjobs.com, jobssearch.adecco2.newjobs.com, snelling.newjobs.com belong to TMP/Monster.com, and that the information going to "newjobs.com" is actually going directly to Monster.com.

A check on the Arin.net database and the Whois database revealed that newjobs.com is owned by TMP Worldwide in Maynard, Massachusetts, the offices of Monster.com.

Here is just one result of a ping, this of the URL snelling.newjobs.com. The ping was to determine what the actual IP address of snelling.newjobs.com was.

```
ping -a snelling.newjobs.com
```

Pinging alliances.monster.com [63.112.169.9] with 32 bytes of data:

Reply from 63.112.169.9: bytes=32 time=105ms TTL=109
Reply from 63.112.169.9: bytes=32 time=176ms TTL=109
Reply from 63.112.169.9: bytes=32 time=136ms TTL=109
Reply from 63.112.169.9: bytes=32 time=127ms TTL=109

Ping statistics for 63.112.169.9:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 105ms, Maximum = 176ms, Average = 136ms

The ping revealed that snelling.newjobs.com had the IP address of 63.112.169.9. When a query to the ARIN database was made regarding to whom the 63.112.169.9 domain belonged, here is what came back:

UUNET Technologies, Inc. (NETBLK-UUNET63)
UUNET63 63.64.0.0 - 63.127.255.255

---

And a look at the Whois database was simply more confirmation of who owns the newjobs domain. Here are the query results:

Registrant: TMP Interactive (NEWJOBS-DOM) 5 Clock Tower Place Ste 500 Maynard, MA 01754-2574 US
Domain Name: NEWJOBS.COM

What does TMP/Monster ownership and usage of newjobs.com mean for job seekers looking at and applying for jobs at corporate sites with Monster affiliations?

First, the long-term tracking "newjobs" cookies given to applicants at Blockbuster and other corporate websites are available to Monster.com until the cookies are deleted.

Additionally, any information given to the corporate site when the URL of "newjobs" is showing will be going to Monster.com. Most of the affiliate sites require that job seekers set up a profile with a password. Users are not told that the profile information is sent to Monster.com. Indeed, at most of the affiliate sites, the fact that the information is going to Monster.com is not revealed anywhere, including in the privacy policies, if privacy policies are available.

This following is an example of data from a packet sniffer which shows what is happening as a job seeker is posting a resume ostensibly to Adecco's corporate website. Note that the information is going to adecco2.newjobs.com, a domain that belongs to Monster.com, not Adecco. The resume is given a unique ID, and a cookie with data is being sent to the newjobs (Monster's) domain, and the cookie itself contains the resume sender's name (in this case Angela Mortlach) and the resume sender's e-mail, (in the case technologydiva@thedixonreport.com).

Lots of other information, like the resume ID, is also in the cookie. Now Monster.com has that information. Even if no one from Monster ever saw the resume itself, they would still get the name and the e-mail address, key marketing information to get, especially when the resume sender hasn't intended to put the resume on the Monster site or give Monster this information.

GET /additionalinfo.asp?resumeid=14987889&original= HTTP/1.1

Accept: */*

Referer: http://adecco2.newjobs.com/skills.asp?
resumeid=14987889&original=

Accept-Language: en-us
Accept-Encoding: gzip, deflate
User-Agent: Mozilla/4.0 (compatible; MSIE 5.5; Windows 98)
Host: adecco2.newjobs.com
Connection: Keep-Alive
Cookie: ASPSESSIONIDGQGGGGRQM=OMP0AOEA0ADHAGKANMFHFIN; cookie=test=ok;
ASPSSESSIONIDQGGGQGFT=MIBCHFBFAPMIBDHNCEJDFNFGE;
ASPSSESSIONIDGGQGYH=GBKPOEOAOI6MKMPMIEFHHKKFJ;
rem=MONKEY=669327894135&REMUSER=18041345; 18041345=
MONKEY=351150687104&LASTLOGIN=7%2F25%2F01+
2%3A48%3A14+PM; newjobs%2Ecom=NAME=angela+q+mortlach&
LASTLOGIN=0&NICKNAME=angelaq1792&FP=01&UP=&
Therefore, in this situation, job seekers are sending profile information to Monster.com without notice. The same goes for any resumes sent ostensibly to corporate websites with undisclosed Monster.com affiliations.

In one situation, at Travelers Insurance's corporate job application site, by using the same e-mail to set up a profile as was used to set up an account at a totally separate corporate site, the following message was given:

*Good news! We already have an account set up for you with your e-mail address. Simply click here for your Username and Password to be sent via e-mail to continue the log in process.*

This message confirms source interviews which noted that Monster.com keeps all job search profiles together. It is disconcerting to discover that the mere act of going to a corporate website can get a job seeker a Monster.com profile, in which case a job seeker would have no understanding of the true privacy policies for that information and how the data may be used.

In another example, if a job seeker went to the H&R Block website to apply for a job, here is what they would see:

The URL in the browser window would be:


It has already been shown that newjobs.com actually belongs to Monster.com. The job seeker would read the following text about what H&R Block says about applying for a job via its corporate website:

*Career Management Account*

*Click here to create an account. We encourage you to create an account to simplify your communication with us and allow us to match your skills with future opportunities within our company. Your information will remain confidential.*

*If you already have an account, please login.*

Nowhere is Monster.com mentioned, alluded to, or even seen in the URL, cookies, or anywhere else. The privacy policy from the job search page was unavailable during the times the site was visited; the following page was listed as the policy, but did not come up:


The H&R Block general privacy policy was analyzed and even it did not contain any reference to its job search or career area, or its use of Monster.com or that information sent ostensibly to the H&R Block website was actually going to Monster.com servers. The site also did not mention that creating a profile on its site was going to create a Monster.com profile.

It should be noted that European sites with Monster.com affiliations are sometimes more direct in expressing that affiliation. Many of the EU companies sites that were analyzed disclosed their relationship with Monster.com clearly.
16.2 Monster.com Detailed Problem Description: User Tracking involving AOL

But posting a resume online may not be as private as job seekers think. Job boards, which exploded during the 1990s, are grappling with a growing poaching problem that threatens their long-term viability and puts job seekers' private information at risk.

For example, if you post a resume on Monster.com, you are given a unique resume I.D. number. Even if you are not a member of AOL, and not on any AOL property at the time, and have not posted the resume to AOL, Monster.com sends AOL that resume number.

For job seekers on AOL-related sites, there are technical reasons why AOL needs to have this information. But for everyone else on the Web, the reason that detailed job search information is given to AOL is unknown. Former employees of Monster.com familiar with the deal allege that AOL required that Monster.com allow it to track any Monster.com visitor as part of the overall business arrangement.

The way Monster.com passes job seekers' information from non-AOL properties to AOL is through discreet banner advertisements on sensitive areas of the Monster.com site, such as job search and resume posting areas. Even if a job seeker just clicks to look at jobs, various job search data is still sent to AOL servers, because banner ads can and do collect user information through the use of cookies and web bugs.

When a job seeker visits Monster.com's home page, the job seeker is requested to accept an assortment of cookies, small text files that identify a computer to the entity depositing the cookie. The users are also requested to run ActiveX controls. ActiveX controls are a type of technology that has been widely reported on as potential privacy problems at websites.

Naturally, users are not forced to accept cookies. But when cookies are not accepted, many of the pages at Monster.com do not work correctly, something Monster.com admits to in its policies. From the Monster privacy policy:

You have the option of setting your browser to reject cookies. However, doing this will hinder performance and negatively impact your experience on our site.

The site fails regularly when cookies are not accepted. When cookies are accepted on a job seeker's computer, they may work in concert with banner ads to reveal job searching patterns of individual computer users, even if no resume has been posted.

The banner ads on Monster.com are served, or delivered, by AOL. The placement of the banner ads raises concerns, because they are located on very sensitive pages, including the pages where job seekers are requested to fill in forms with resume data, contact information, and other personally identifying information. Images on Web pages (like banner ad images) can be used to gather the data that a job seeker is filling in on a Web form.

Web forms, if they are not handled correctly, can pose privacy risks to job seekers. The crux of the issue is how the Web form transfers data to servers. The preferred method for collecting information from Web forms is the POST method, which allows information only to pass to the servers where it needs to go, in this case, Monster.com servers. But the GET method of collecting information from Web forms bundles information on forms into URLs and allows third parties, in this case, AOL, to pick up the information, too.

An analysis of the Monster site using a packet sniffer reveals that Monster.com Web pages use the POST method infrequently, and primarily utilize the GET method. While Monster.com may argue that due to its exclusive

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relationship with AOL that it needs to pass all key consumer data to AOL, Monster.com passes all job seeker's information to AOL servers, regardless of AOL membership or presence on the AOL site. Further, the Monster.com privacy policy does not disclose this relationship.

Here's a sample job search showing how the tracking process works on Monster.com.

After entering the Monster site and clicking on the "First Timer's" area, then "Job Search," this researcher filled in the information that a job was sought in Dallas, Texas, as an accountant. The following URL showed in the browser window:


Any URL that shows in the Web browser window can also be "seen" by the third party advertisers that have banner ads on the page. In this case, the advertiser is AOL. The images making up the banner ads are coming from the AOL servers, or computers, which means that there is the potential for the AOL servers to get the information in the URLs.

A packet sniffer was used to analyze the logs of this job search session. The logs revealed that the preliminary job search information filled in on the job search page form was indeed passed to AOL. Note that this job search was conducted not on AOL, but on the open Web.

GET /html/93042540/monster?search=1615+c1&height=60&width=468&htmlpre=document.write%28%29&htmlsuf=%27%29%3b%3xln=%5ecn%3xtick=%5c%27&ctype=application/x-javascript HTTP/1.1
Accept: */*
Accept-Language: en-us
Accept-Encoding: gzip, deflate
User-Agent: Mozilla/4.0 (compatible; MSIE 5.5; Windows 98)
Host: ads.web.aol.com
Connection: Keep-Alive

Because Monster used the GET method in its job search form, AOL has information that search number 1615 (it is unknown what that number means) was looking for a job in a US city, (615 likely is the code for Dallas, but this is unknown) and that the keyword used for searching was accounting. So far, this information spill is annoying and unnecessary, but not damaging per se. This information is not, at this point, extensive, particularly if that user is visiting for the first time and has not created a Monster profile or posted a resume.

After the search button was clicked on the job search page, a list of jobs was returned. A JP Morgan job was selected. The following URL showed up in the browser window:

http://jobsearch.monster.com/jobs/11752048.asp?
jobid=11752048&CCD=my%2Emonster%2Ecom%2JSD=
jobsearch%2Emonster%2Ecom%2&AD=2Emonster%2Ecom%2&AD=hp%3A%2F%2Fjobsearch%2Ecom%2Eus%2Djobid%3D1%26fn%3D1%26q%3Daccounting&Logo=1
The job ID for this JP Morgan accounting position is **11752048**, as noted in the highlighted section of the URL above.

AOL servers get to pick up this information too, as seen in the network logs of this job search as analyzed by a packet sniffer:

```http
GET html/7014704/monster?height=60&width=468&htmlpre=
document.write%28%27&htmlsuf=%27%29%3b&xhtml=%5cn%5ltick=%
%5e%27&ctytype=application/x-javascript HTTP/1.1
Accept: */*
Referer: http://my.monster.com/login.asp?auth=1&redirect=%2Fapply%2F8App%3Fjobid%3D11752048%26redirect%3Dhttp%253A%252F%252Fjobsearch%252Emonster%252Emonster%252Ecom%252Fjobsearch%252E4%253Fcy%253DUS%2526brd%253D1%2526oid%253D615%2526fn%253D1%2526q%253DAccounting
Accept-Language: en-us
Accept-Encoding: gzip, deflate
User-Agent: Mozilla/4.0 (compatible; MSIE 5.5; Windows 98)
Host: ads.web.aol.com
Connection: Keep-Alive
```

Because Monster.com used the GET method to collect information from its job search forms, that information is bundled and shows up as a URL in the **Referer** field of the above information. Again, when information is in the referer field, third parties can pick it up. The JP Morgan job ID number is highlighted in yellow in the URL. The country and probable state ID is highlighted in green. The keyword “accounting” that has been passed along to AOL is highlighted in pink. Looking at the **Host** field, you can see that this information is going directly to AOL servers. (Host: ads.web.aol.com)

This pattern of information spillover continues throughout the Monster.com site, even for people who have not registered or posted a resume. At this point, AOL servers are being passed information about what pages have been looked at, what job area, city, state and country are being looked at, and what specific jobs have been looked at.

If a job seeker then decides to apply for a job online, they can register to do this. Registration is required before posting a resume on Monster.com, according to research. Frequently, job seekers are asked to take pre-employment tests before they can send a resume to the job. The JP Morgan job, for example, required that users rate their skills in four job skills areas.

At the Monster registration and resume posting area, the information spills continue. The registration and resume posting pages contain ads from AOL. As already seen, these ads can pick up the information filled into Web forms because of Monster’s use of the GET method. If JP Morgan had provided contact information on its job ad, or if Monster had allowed them to provide it, a job seeker would be able to go directly to JP Morgan to apply for the job. It should be noted that some job advertisements on Monster.com do provide e-mail contact addresses, so that savvy job seekers can bypass Monster.com and apply directly. But this is not a given, and without such reference information, a job seeker who wanted to apply for this job would have to click the Apply link, which leads to the Monster.com registration page and resume building page.

Here is a packet sniffer log of what one of the resume page transactions looks like; in this case a few pages of the resume had been partially created.
In this situation, AOL servers are being sent the resume ID number, which is highlighted in yellow above. They do not appear to have the name of the person, but they do have the resume ID number that ties the resume directly to one unique person and their complete profile of information stored at MyMonster.com. It is not clear why AOL servers need the resume ID number of a person applying for a job on Monster.com and not on AOL.com. Monster.com says it has over 8.6 million resumes in its database; that’s a lot of user data to have passed along to AOL servers.

A note about information correlation at Monster.com. The job ID that became part of the job search profile earlier (11752048), was then placed with personally identifying information such as name and made available to Monster.com servers. It is perfectly understandable and acceptable that Monster.com needs to send this information to its own servers for limited time periods. But AOL has the Job ID and now the Resume ID. With these two pieces of information, it is technically possible, given even a small accidental data spill, to correlate personally identifying information to the ID numbers. These ID numbers are given to all site visitors who post resumes, even if Monster.com is accessed outside of AOL or accessed without using AOL Internet services.

Below is the log showing Monster’s correlation of the data: please note that this information is not going to AOL servers in this instance. This data is to show that Monster has correlated the ID numbers with personally identifying information. It is unknown if this correlating data is given at any point to AOL either through the servers, or elsewhere offline. Please note that it is normal for a job site to correlate ID numbers with other information. What is unusual is to pass these numbers to third party servers belonging to such entities as AOL.

14129236
P 181&Mac246; 0(P ? _ HTTP/1.1 302 Object moved
Server: Microsoft-IIS/5.0
Date: Thu, 21 Jun 2001 13:31:12 GMT
Location: /login.asp?NoAuto=1&user=bethhurley&Password=bethbeth&submit=1&redirect=%2Fapply%2Easp%3Fjobid%3D11752048%26redirect%3Dhttp%253A%252F%252Fjobsearch%252Emonster%252Fecom%252Fjobsearch%252Easp%252Fecz%25253DUS%2526brd%253D1%2526lid%25253D615%25253Dnu%25253D1%252526eq%25253D1Daccounting
Content-Length: 388
Content-Type: text/html
Set-Cookie: rem1=MonKey=822690325228&RemUser=17291948;
exp=Fri, 21-Jun-2002 13:31:12 GMT; domain=monster.com; path=/
Cache-control: private
The user name, "bethhurley" is highlighted in yellow. The job ID number is highlighted in green, and again, the information about city, state, and keyword shows up in this data. The new number, the user number, shows up in blue.

A cookie that Monster deposited to the computer hard drive echoed this information:

rem1
MonKey=822690325228&RemUser=17291948
monster.com/
0
3905735856
29497639
391427360
29424215
*
17291948
MonKey=3745570186096&LastLogin=6%2F21%2F2001+
8%3A47%3A49+AM
monster.com/
0
3961133568
29424417
2036292768
29424217
*

Many users accept these types of cookies, which are meant to allow site visitors the ease of just visiting the site without having to log in every time. This cookie simply remembers the user number, highlighted in blue, and provides visit information such as time and date of the last Monster.com visit. Monster also uses these cookies to track users in a very detailed way as they search for jobs. Monster correlates the unique user ID, which is connected with the resume, across job searches, job applications, and resume postings.
In the example above, an advertisement served by Monster.com and apparently returning to Monster’s servers, collects a cookie with the user ID. As long as users do not mind their intricate job searching patterns collected by Monster.com and tied directly to them, then this type of tracking will not be a problem. If users mind detailed, personal tracking, then this would not be appealing.

There may be additional issues of datamining ("eResourcing") the information passed to Monster.com servers, a practice Monster.com itself acknowledges in financial documents filed with the SEC. It therefore becomes important to understand all the ways each bit of information that is passed to Monster.com and the AOL servers is used, now and in the future.
16.3 Privacy Recommendations

The online job search industry, and TMP/Monster in particular, have helped tens of thousands of people to find employment. However, if job seekers and the personal information they provide becomes a commodity without adequate privacy protections, online sites may lose job seeker trust and a valuable tool will be tarnished.

The following recommendations would be good first steps toward alleviating some of the concerns regarding Monster.com and TMP Worldwide:

- As part of the FTC review of the Monster.com acquisition of HotJobs, the company should be asked about intentions to sell resume data now or in the future.

- In TMP/Monster acquisitions involving the transfer of resume databases, the company should seek permission of individuals who have previously posted resumes before any resume is added or transferred to TMP/Monster databases or used in any way by TMP/Monster.

When a job seeker deletes a resume, the resume should be removed from all online and offline servers and databases, with no backup logs kept of the resume that could be parsed or used later.

Monster.com should require private label corporate sites to fully disclose the use of Monster.com as an agent; and give job seekers the choice to opt in or out of having their resume data stored on Monster.com servers.

Unique resume ID numbers should not be passed to AOL Time Warner unless a person is at an AOL property. In addition, AOL Time Warner banner ads that have tracking features should be removed from all sensitive areas of the Monster.com site, including the profile creation, resume creation and resume posting areas.

- A thorough privacy policy should be posted at MonsterTrak. In addition, age and gender information should not be collected. MonsterTrak should disclose that different campuses receive different job postings.

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16.4 Advanced Internet Recruiting Strategies

Here are some of the techniques taught by online recruiting consultants Advanced Internet Recruiting Strategies (now known as AIRS), RISE Internet Recruiting Seminars, and CareerXroads.

16.4.1 Flipping

What it does:
By flipping a site, you can find resumes or conference rosters with links to a particular company. These listings also often yield biographies, e-mail addresses and other juicy details about potential job candidates.

One of the most popular techniques -- flipping -- allows recruiters to search the entire Web for employees who have worked for, or even attended a conference held by, a particular employer, provided they have listed a link back to that company on their electronic resume.\footnote{CareerJournal, “Recruiters Use The Web To Uncover Talent”, The Wall Street Journal Online; available from http://www.careerjournal.com/recruiters/weekexec/20001004-silverman1.html, Internet; accessed 24, February, 2003.}

How to do it:
Using a search engine such as Altavista.com's advanced search, type the words link: to search the Web for resumes with live links to a certain company's Web site. (On some search engines, such as hotbot.com, the applicable command is link domain.)

Example:
16.4.2 X-Raying

What it does:
Using this technique, recruiters can identify key employees by traveling to those places on a company's Web site that aren't directly accessible via links on the main public home page.

Take X-raying, for example. Using simple search commands, recruiters can find information on, say, many of the engineers or business-development executives who work for a particular company.\(^{156}\)

How to do it:
Using a search engine, type the command host: or url: before a company name with the key words guiding the search.

Example:
Typing host: lucent.com and "business development" would reveal pages and sites with leads on key business development employees at Lucent Technologies Corp.

Another trick to finding e-mail addresses of people is Yahoo's Advanced People Search http://email.people.yahoo.com/py/psAdvSearch.py. It doesn't have everyone but you are sure to find people, especially at larger organizations.\(^{157}\)

16.4.3 Feeling

What it does:
Embedded inside many really long Web addresses are what may be links to staff directories or contact lists. Many Web addresses, or URLs, are filled with clues for recruiting searches, such as the words resumes or people or attendees. Peeling helps recruiters find the links to these sites.

Example:
A hypothetical site with the address www.widgetcompany.com/people/joedoe/myfavoritething/can be "peeled back" to www.widgetcompany.com/people/ Voila! A staff list!


\(^{157}\) Dumas, Michelle, "Creating Byte-Able Resumes For Electronic Job Searching" in CareerXRoads 2003, ed. Gerry Crispin and Mark Mehler (New Jersey: MMC Group, 2003), 35
16.4.4 Anchor Search

What it does:
Many internal corporate Web pages include some telltale words as part of the address, such as "view resumes." A search using the command anchor: and those words can help uncover a stash of employee information.

How to do it:
In a search engine, type in anchor: "view resumes" and other key words such as "software engineer" or a company’s name.

16.4.5 Harvesting

What it does:
Harvesting involves reviewing a document, such as a resume or home page, and finding key words, links, references and locations that assist with subsequent searches.

How to do it:
The key words, Oracle developer, for example, can yield many different terms and acronyms. Apply those key words to subsequent searches.
To harvest more effectively, use metasearch engines which aggregate several major search engines. Popular metasearch engines include alltheweb.com, mamma.com and dogpile.com.

16.4.6 Peer Searches

What it does:
Metasearch engines are also useful for peer searches, which let you find colleagues of candidates with similar qualifications.

How to do it:
If you've located the perfect candidate but have another opening, type in the candidate’s key information, such as an e-mail address or company name, and see if the search engine turns up any staff or company rosters with similar prospects.

16.4.7 Drift Nets

What it does:
Some recruiters harvest hundreds of resumes from the Net and forward them to their clients in bulk. Many are only tangentially appropriate for the job at hand. Ditch any recruiters who can't explain how they sourced your resume and selected yours from the others.

16.4.8 Web Ferret/Web Snake/Web Spiders\textsuperscript{159}

\textbf{What it does:}

WebFerret and WebSnake allow recruiters to uncover talented, passive candidates from the slimmest of traces -- a newspaper quote, participation in a panel discussion, even membership in a low-key industry group. Internet-recruiting spiders, snakes and other robots are programmed to scan job boards and pluck off the resumes of attractive candidates. Unbeknownst to the candidates, these documents often are sent to recruiting managers at their own employers.

16.4.9 Resume floating\textsuperscript{160}

\textbf{What it does:}

Looking for a quick buck, some headhunters cherry-pick good-looking resumes from the Web and tell current or potential clients they can recruit the candidates, even though there's no search in process or no initial interest from the client. They're usually hoping to establish a client relationship.


16.5 Methods for Measuring ROI

16.5.1 Balance Scorecard

Definition
A set of principles and analytic techniques for improving an organization's performance in four general areas: financials, customers, learning and internal processes.

"There are many different balanced scorecards, and they serve many different purposes," says Arthur Schneiderman, an independent business-process management consultant in Boxford, Mass. "But most organizations will say its purpose is to link strategy to action."

Regardless of how one defines it, the balanced scorecard is based on several underlying notions. The first is that financial measures alone aren't sufficient to size up the health of a company and that a single-minded pursuit of financial objectives could lead your company to ruin in the long run.

The second is that balanced scorecard focuses on process, not metrics. As such, it's forward-looking (How can I retain my best customers?) rather than backward-looking (What were my earnings per share last quarter?).

The scorecard is an analytic framework for translating a company's visions and high-level business strategies into specific, quantifiable goals and for monitoring performance against those goals. The methodology breaks high-level strategies into objectives, measurements, targets and initiatives.

What it means
Long-term organizational excellence can be achieved only by taking a broad and holistic approach, not by focusing solely on financials.

Strengths
This approach is potentially all-encompassing, combining financial and nonfinancial goals and measures. It can encompass the performance of entire companies or business units, not just individual investments or projects. Balanced scorecard is future-oriented, not a rearview mirror on performance.

Another advantage of this integrated scorecard approach is that it retains the hundreds of detailed metrics for front-line supervisors but gives top management a "dashboard" displaying a few key measures.

Weaknesses
This method is potentially so broad that it may divert resources from those few areas that really are vital to shareholder return. It doesn't readily weight the relative importance of the different metrics it uses.

There's a danger that use of the balanced scorecard can divert management attention away from the most important goals, which are financial, says Ray Trotta, co-founder of iValue LLC, an IT valuation consultancy in Barrington, Ill. "We like the way the Street does things; they talk about dollars and cents," he says. "The balanced scorecard talks about customer relationships, internal processes, learning and growth. I mean, those things are good, but where's the money?"

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16.5.2 Economic Value Added ¹⁶²

Definition

Economic Value Added (EVA) -- a name trademarked by Stern Stewart & Co. - subtracts the capital charge (the capital investment times the cost of capital) from the net financial benefits of the investment.

EVA is defined to be: Net operating profit after taxes - capital charge (capital investment x cost of capital)

What it means

Economic profit is wealth created above the capital cost of the investment. EVA prevents managers from thinking that the cost of capital is free.

The fundamental proposition of EVA is that capital isn't free and its cost must be factored into every benefit analysis or return-on-investment model when an investment in a plant, equipment or a new customer relationship management system is contemplated.

Strengths

EVA focuses managers on the question, "For any given investment, will the company generate returns above the cost of capital?" Companies that embrace EVA have bonus compensation schemes that reward or punish managers for adding value to or subtracting value from the company.

Weaknesses

As with any metric, it's hard to link precise EVA returns to a specific technology investment. EVA is ideally suited to publicly traded companies, not private companies, because it deals with the cost of equity for shareholders, as opposed to debt capital.

"EVA doesn't make it easy to quantify IT benefits but creates clarity so that all the pluses and minuses of these IT decisions can be considered in ways that companies [that don't use EVA] find difficult to do," says Bennett Stewart, co-founder of Stern Stewart & Co., a New York-based consultancy that coined the term Economic Value Added, but not the concept.

Consider a recent EVA analysis that Robert Egan, vice president of IT at Boise Cascade Corp., and his colleagues conducted for a storage investment. The decision was whether to keep storage assets or replace them with new technology that has lower maintenance charges. (The example is illustrative. Egan declined to provide real cost figures.)

The new storage technology costs $1 million, with maintenance costs of $100,000 per year. The maintenance expense on the old storage technology is $350,000. (For simplicity, we'll assume that the new storage equipment offers no benefits other than the lower maintenance costs.)

Boise's cost of capital is about 16%. Therefore, the capital charge for investing in the new storage is 16% x $1 million, or $160,000, which EVA says must be added to the $100,000 maintenance costs to get the true cost.

The result: The total cost of the new storage is $260,000, vs. $350,000 for the old storage. "In this case, have you lowered the operating cost enough to make up for spending the capital?" asks Egan. Yes -- $90,000 worth.


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16.5.3 Internal Rate of Return (IRR) 163

Definition
The internal rate of return (IRR) is the discount rate that results in a net present value of zero for a series of future cash flows.

What it means
It's a cutoff rate of return; avoid an investment or project if its IRR is less than your cost of capital or minimum desired rate of return.

Strengths
It provides a simple hurdle rate for investment decision-making. It's the method favored by many accountants and finance people, possibly the ones at your company.

IRR is often used as a hurdle rate, a sort of go/no-go investment threshold. Gaylord Entertainment Co. in Nashville, for example, has computed its weighted average cost of capital—a percentage that it won't disclose—and a "hurdle" percentage rate a few points higher. An investment's IRR must generally equal or exceed the hurdle rate to be approved by management, says CIO Kent Fourman.

"We calculate the IRR and then compare that to our hurdle rate," Fourman says. "And we compare that IRR against every other [project's] IRR, because you always have limited cash."

IRR computes a break-even rate of return. It shows the discount rate below which an investment results in a positive NPV (and should be made) and above which an investment results in a negative NPV (and should be avoided). It's the break-even discount rate, the rate at which the value of cash outflows equals the value of cash inflows.

Weaknesses
It's not as easy to understand as some measures and not as easy to compute (even Excel uses approximations). Computational anomalies can produce misleading results, particularly with regard to reinvestments.

IRR becomes increasingly misleading the more it diverges from the cost of capital, says Ian Campbell, chief research officer at Nucleus Research Inc. in Wellesley, Mass. "IRR is a terrible metric, and it should never be used," he asserts.

IRR, like NPV, doesn't measure the absolute size of the investment or its return. And because of the way the math works, the timing of periods of negative cash flow can affect the value of IRR without accurately reflecting the underlying performance of the investment.

IRR can also produce misleading results because, as classically defined, it assumes that the cash returned from an investment is reinvested at the same percentage rate, which may not be realistic.

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16.5.4 Net Present Value (NPV) \(^{164}\)

Definition

The net present value (NPV) of an investment is the present (discounted) value of future cash inflows minus the present value of the investment and any associated future cash outflows.

NPV accounts for the time value of money by expressing future cash flows in terms of their value today.

The discount factor for year \( n \) can be computed as: discount factor = \( \frac{1}{(1+i)^n} \), where \( i \) is the target rate of return. So at a discount rate of 10% in Year 1, discount factor = \( \frac{1}{(1.1)} \), or .909. Thus, in the earlier example, the present value of $1.10 a year from now is $1.10 \times .909, or $1.00.

What it means

It's the net result of a multiyear investment expressed in today's dollars. The bigger the NPV—other things being equal—the more attractive the investment is.

Strengths

By considering the time value of money, it allows consideration of such things as cost of capital, interest rates and investment opportunity costs. It's especially appropriate for long-term projects.

Consider an example in which two investments each have an NPV of $100, but one involves an initial investment of $1,000 and the other an investment of $1 million. Clearly the $1,000 investment is preferable because it's less risky and ties up less capital.

NPV is a good "no-go indicator" because you would normally reject an investment with a negative NPV without further consideration. Those with a positive NPV should then be measured by other methods.

Weaknesses

Ranking investments by NPV doesn't compare absolute levels of investment. NPV looks at cash flows, not at profits and losses the way accounting systems do. NPV is highly sensitive to the discount percentage, and that can be tricky to determine.


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16.5.5 Payback Period 165

Definition
An investment's payback period in years is equal to the net investment amount divided by the average annual cash flow from the investment.

What it means
How long will it take to get my money back?

Strengths
It's easy to compute, easy to understand and provides some indication of risk by separating long-term projects from short-term projects.

"Payback gives you an answer that tells you a bit about the beginning stage of a project, but it doesn't tell you much about the full lifetime of the project," says Chris Gardner, a co-founder of iValue LLC, an IT valuation consultancy in Barrington, Ill.

But payback period's emphasis on the short term has a special appeal for IT managers. "That's because the history of IT projects that take longer than three years is disastrous," says Gardner.

Weaknesses
It doesn't measure profitability, doesn't account for the time value of money and ignores financial performance after the break-even period.

17 Statistical Analysis – Definitions

Mean - the average is also called the mean.

Standard Error - the standard error is a measure of the amount of error in the prediction of y for an individual x

Median - the median is the value at the center of an ordered range of numbers.

Mode - returns the most frequently occurring, or repetitive, value in an array or range of data

Standard Deviation - the standard deviation is a measure of how widely values are dispersed from the average value (the mean).

Sample Variance - estimates variance based on a sample. The sample variance is an approximate average of the squared deviation from the sample mean.

Kurtosis - characterizes the relative peakedness or flatness of a distribution compared with the normal distribution. Positive kurtosis indicates a relatively peaked distribution. Negative kurtosis indicates a relatively flat distribution.

Skewness - characterizes the degree of asymmetry of a distribution around its mean. Positive skewness indicates a distribution with an asymmetric tail extending toward more positive values. Negative skewness indicates a distribution with an asymmetric tail extending toward more negative values.

Range – Difference between the Maximum and Minimum value

Minimum - returns the smallest number in a set of values

Maximum - returns the largest value in a set of values

Sum - adds all the numbers in a range of cells

Count - adds the number of cells that contain numbers and also numbers within the list of arguments

Largest - returns the k-the largest value in a data set.

Smallest - returns the smallest value in the list of arguments.

Confidence Level (95.0%) - returns the confidence interval for a population mean. The confidence interval is a range on either side of a sample mean.
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