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HOW TO CONVINCE PEOPLE WHO DON'T LIKE IT TO USE IT A CASE STUDY ON E-RECRUITING

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Abstract

Information technology has transformed the ways firms recruit candidates. Online job portals and corporate websites offer a broader outreach at lower costs per contact than ever before and also enable the gathering of structured candidate information that can be used in a fully digitized candidate application and relationship process. Accordingly, empirical data shows that more than one out of two vacancies in large firms are published in online channels, and two out of three hires result from online channels. But in order for the full potential of e-recruiting to be realized, not only do firms have to develop an e-recruiting capability but the prospective candidates also need to accept the new online scenarios. We present a case study with a global innovation leader in industrial and process automation that shows how IT investments in e-recruiting can successfully generate value even with barriers like particularly IT-averse candidate types such as apprentices by implementing a mix of IT and complementary non-IT strategies.

Keywords

Case Study, IT Value, IT Aversion, IT Strategy, IT Usage behavior, HRIS

Introduction

It is generally accepted that IT does not generate value per se (Peppard and Ward 2004). Research has shown that investments in IT also require complementary investments in non-IT processes, structures and organizational resources to generate value (Melville 2004) as the effects of IT resources on performance parameters result from a continuous interplay with other complementary resources (Peteraf 1993; Devaraj and Kohli 2000; Powell and Dent-Micaleff 1997). Milgrom and

Roberts found that increasing one variable might not influence the outcome if the concurrent variable is not contemporaneously increased. If IT-investments are made without a corresponding change in the organization the investments might end in significant productivity losses because the potential value of IT is overcompensated by negative influences due to a mismatch of organizational practices and the IT structure implemented (Brynjolfsson and Hitt 2000).

In this context, overcoming barriers to IT adoption and use might require a mix of IT and non-IT measures. Barriers to use can be regulation by government, inappropriate management or, prominently, user reluctance (Fichman 2000 and Swanson 1994). A group of prospective users that has been shown to be especially reluctant to use web-based systems are young non-academic applicants for apprenticeships in (e-)recruitment processes.

In this paper, we approach the following research question: How could you overcome the reluctance of individual groups to use web-based recruiting systems in order to generate value from IT investments? To answer this question we present the case of a global innovation leader in industrial and process automation who successfully convinced reluctant apprentices to use their web-based recruiting system. The paper is structured as follows. In the next subchapter we introduce the research domain HRIS (Human Resources Information Systems) and its importance for staff recruitment in major enterprises. The problem of reluctance in the use of web-based recruiting systems is addressed in the third chapter. After a case study approach in chapter 4 we draw the consequences and recommend further research.

HRIS in Staff Recruitment

A talent shortage is about to threaten international labour markets. Especially due to the demographic situation, companies of all sizes will have to compete for a small group of highly qualified workers. The proclaimed "War for Talent" (Chambers 1998) dramatically increases the relevance of recruitment and the selection of employees. Staff recruitment follows the personnel planning phase and precedes the employee development and retention phases (Olfert, 2003).

The recruitment process can be decomposed into the attraction and the selection of candidates (Färber, 2003). Selection and attraction processes are linked by the internal workflow known as applicant tracking (see Figure 1). The activities connected with the attraction of candidates are in the first phase employer branding, which could be described as external and internal positioning as an attractive employer. A professional and strategic use of employer branding improves the employer's image as well as quality and increases the long-term competitiveness of the entire company (Pett 2006). In the phase of candidate attraction the companies have two alternative ways to search for new employees. On the one hand they could publish a job ad on their corporate website or on internet job portals, on the other they could search actively in the CV databases of job portals, networking communities, personnel consultancies, etc. (Lee 2005 and Schiller-Garcia 2006). After the income of applications an internal workflow is started, including the processing of these applications and the management of responses to the candidates concerned. Different selection and pre-selection instruments and methods are used to ascertain those candidates that might fit the job (Armstrong, 1995).

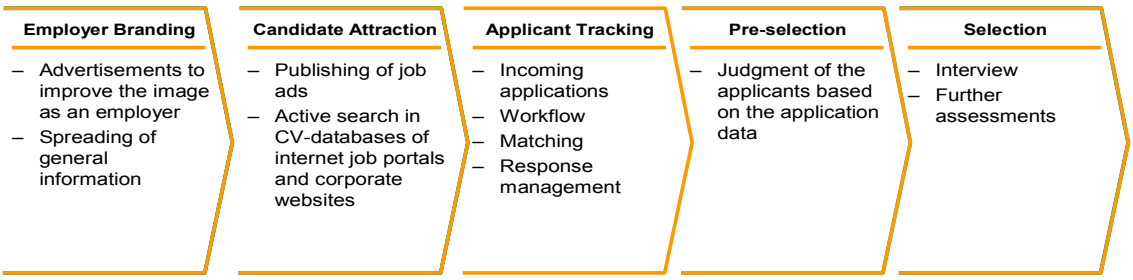

Figure 1: The recruiting process

Recently, recruiting processes have been influenced by a number of dramatic changes in the usage of IT. IT-support in staff recruitment can be separated into three different types. The career sections of corporate websites as well as internet job portals are used not only to attract candidates to possible employers but also to provide the facilities to apply via an electronic application form or e-mail. An increasing number of applications with structured candidate information have led to the implementation of applicant management systems. These systems support the internal workflow and are invisible to the candidates (Keim et al. 2005).
By means of an empirical survey of the Fortune-1.000 companies in Germany (response rate: 15.6 percent) a growing use of this IT-support in the staff recruitment process could be identified in recent years. The main driver of this increasing IT use is its major potential to reduce costs and improve effectiveness (Devaraj and Kohli 2000). An IT-system offers the company the ability to estimate the optimal size of employment during a recruiting planning period. Dyl and Kearney (1983) used this approach to calculate cost minimization in staffing. For example, a job ad published on the internet is a lot cheaper than a job ad in a nation-wide newspaper compared in terms of specific periods. The companies are also able to reach more potential jobseekers via the internet (Freeman 2002). Moreover they have many opportunities to represent their employer image in order to build up employer branding (Capelli 2001). Electronic applications mainly offer time savings compared to the use of paper-applications because of faster application processing and improved response management. A faster reaction to incoming applications could be the source of a competitive advantage because the companies could close contracts with the most talented applicants earlier than other competitors (Chapman and Webster 2003). Finally Lee (2005) showed with his simulation experiments that the e-recruiting process performs better than the traditional not IT-supported process in terms of both the average recruiting process time and the total recruiting cost.

Where candidate attraction is concerned, only four years ago the Fortune-1,000 companies in Germany recruited only half of their employees via the internet. But this situation has changed over the past few years. Employment by means of internet recruiting channels like the corporate website or an internet job portal have increased by 11.5 percent points since 2003. In comparison the number of employments via job ads in the printed press decreased by 12.2 percent points (Eckhardt et al. 2007).
There have also been significant changes in terms of applicant tracking regarding the field of incoming applications over the past few years. Only five years ago in Germany 70 percent of all incoming applications to the Fortune-1.000 companies were classical paper applications. The rates of paper and electronic applications were almost even in 2005. In 2006 the companies received for the first time more electronic applications via e-mail the application-forms on the corporate website and internet job portals. The survey participants expect a complete turnaround for the relation between paper and digital applications within eight years (Eckhardt et al. 2007).

Research Motivation

Since 2004 we have conducted a survey with jobseekers in Germany extending an existing model by Kirchgeorg and Lorbeer (2002). Our aim is to discover the procedures, attitudes, values and goals of the jobseekers in the application-process. Therefore we ask them about the channels they use in the job-seeking process to inform themselves about vacancies or interesting employers and additionally what kind of application methods they prefer. The model we try to extend assumes that the jobseekers act strongly influenced by socio-demographic factors like age and gender as well as by the candidates' personal values, course of study, career status and occupational group. These factors are summarized in Figure 2.

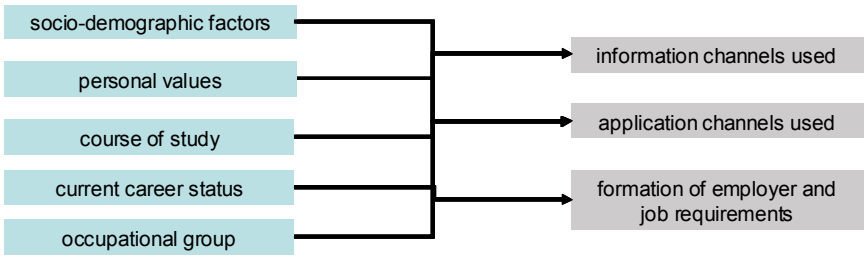

Figure 2: Analytical model explaining job seekers' behaviours (Keim et al. 2006)

An online questionnaire was used compromising 34 questions with overall 250 variables. Within a period of three weeks a total of 11.500 jobseekers answered our questionnaire. Following the dataset clearing for doublets and "fake-participants" we included a total of 9.876 jobseekers into our analysis (Eckhardt et al. 2006). The distribution of survey participants regarding their current career status is visualized in Table 1.

Table 1: Distribution of survey participants

	Number of participants	Relative frequency
Apprentices	267	2.7%
Students	1068	10.8%
Young Professionals	1804	18.3%
Professionals	2742	27.8%
Mid Management	860	8.7%
Top-Managers	103	1.0%
Self-employed	867	8.8%
Unemployed	2165	21.9%

As mentioned above in this survey we observed the factor career status and its influence on jobseeker's behaviour in the use of information and application channels. Figure 3 now shows the frequency of use of the corporate website compared to the classical channels of printed press and federal employment agency.

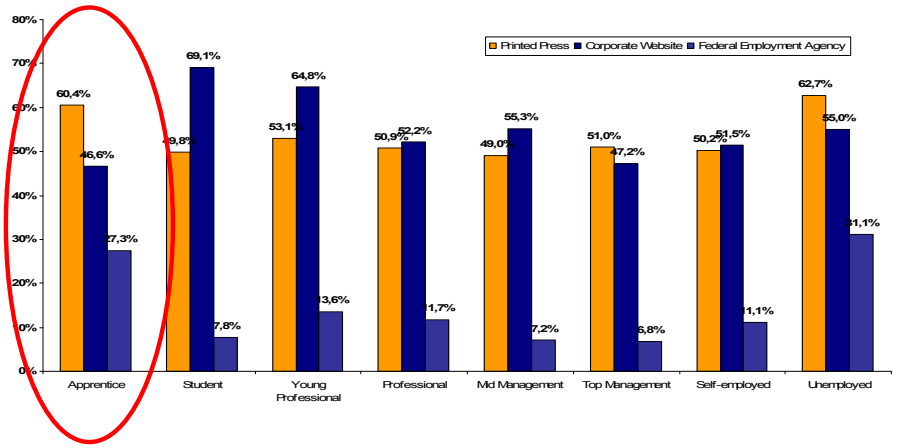

Figure 3: Frequency of use of single recruiting channels

As Figure 3 shows the corporate website is often used by students, young professionals, managers at the medium level and self-employed people. For top managers, unemployed people and the apprentices the printed press is more important for acquiring information about vacancies and potential employers than the corporate website. Apprentices in particular still show a strong preference for the printed press and the federal employment agency. They also have the lowest usage rate for corporate websites compared to the other groups (Eckhardt et al. 2006).

With regard to applicant tracking within the recruiting process the IT aversion of apprentices could also be seen in their preference in terms of application form. Figure 4 now shows the preferred form of application method per group.

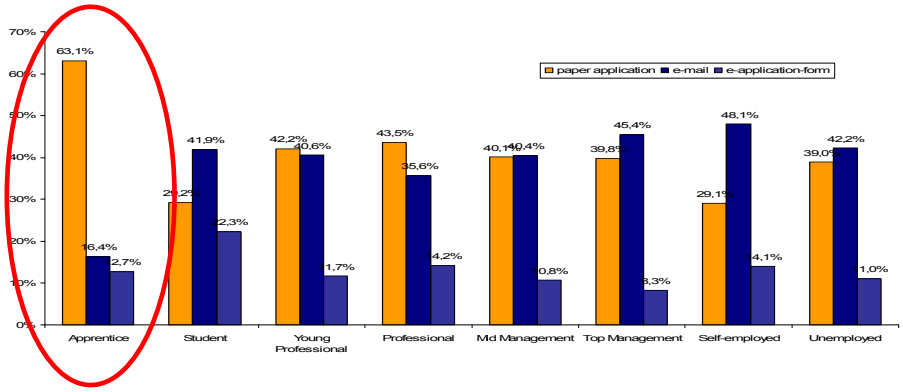

Figure 4: Preferred form of application method

The great majority of the apprentices questioned prefer to use a paper application in the application process. Only 29.1 percent apply for an apprenticeship in a company using an online channel. All other groups apply more using the online channels. On average, for all groups except apprentices, more than every second application is an e-mail or an application via the forms of corporate websites and internet job portals (Eckhardt et al. 2006).

We stated initially that investments in IT demand complementary investments to gain business value (Melville 2004). To gain benefits from IT in the form of cost or time savings (Lee 2005) companies have to merge their IT resources with the complementary resources in the organizational environment (Melville 2004). When this is linked to our problem, we see that

because of the low level of IT-usage among apprentices companies have to intensify the level of integration of this target group in their e-recruiting process to generate the benefits of IT. Otherwise they would lose a large number of applicants on the one hand and their investments would be wasted. Accordingly, in dependence on Brynjolfsson and Hitt (2000) IT investments may result in significant productivity losses unless there is organizational restructuring because the potential benefits like cost and time savings are exceeded by negative effects such as a decrease in the number of applicants and, as a result, a decrease in matching the quality of vacancy and applicant.

In the next chapter a case study with the content of a successful combining of IT resources in staff recruitment with the complementary organizational resource of applicants for an apprenticeship is introduced.

A Case Study Approach to Overcoming IT Aversion in the Recruiting Process

First we present the research methodology and the IT strategy of the company observed, followed by the presentation of the research results.

Research Methodology

In the planning phase we defined our research design and its components following the guidelines of Eisenhardt (1989) and Yin (2003). Then we prepared our data collection and created interview guidelines based on basic theoretical models. Afterwards we checked them for consistence to provide adaptiveness and flexibility. We started to prepare data collection and sectioned the interviews in two stages. We collected the evidence with a part-structured interview to discover the context variables in Mid-June 2006 and a structured interview to develop the model elements at the End of July 2006. As far as possible we added further documents provided by the company to extend our outcomes. Finally the case study report was checked by our interview partners.

Description of the Case

The company for our case study was chosen because of its long tradition in apprenticeship in Germany and its great depth of awareness of IT-adoption throughout its whole entrepreneurial processes (Dewar and Dutton 1986).

The company is a worldwide leading provider of automation technology and an outrider for innovations in pneumatics engineering. Training is of major importance for this company. In total, technical and commercial apprentices in 14 different occupations are trained within this enterprise and thus far more than the overall average of 7.5 percent in German large-scale companies. Also on an international level the company has achieved a good reputation for its apprenticeships. Two of their mechatronic apprentices finished in second place in “World Skills”, a world championship where apprentices demonstrate their technical skills. In over 80 countries worldwide young pupils are trained as commercial and technical apprentices within this company.

Applied Strategy

As the top managers of the company decided to invest in the use of information technology in the in-firm training department in the form of extensive online-recruiting campaigns and the adoption of an applicant-management system in the year 1999, they also set three main objectives for the apprenticeship-recruiting:

- Improving the overall quality of their applicants
- Reducing the average recruiting process time and recruiting cost
- A future paperless digital applicant management

To achieve these objectives the company created a strategy plan with the following flowchart. It was the aim of the company to provide integrated solutions on the company side for the needs and procedures on the applicant side at any time.

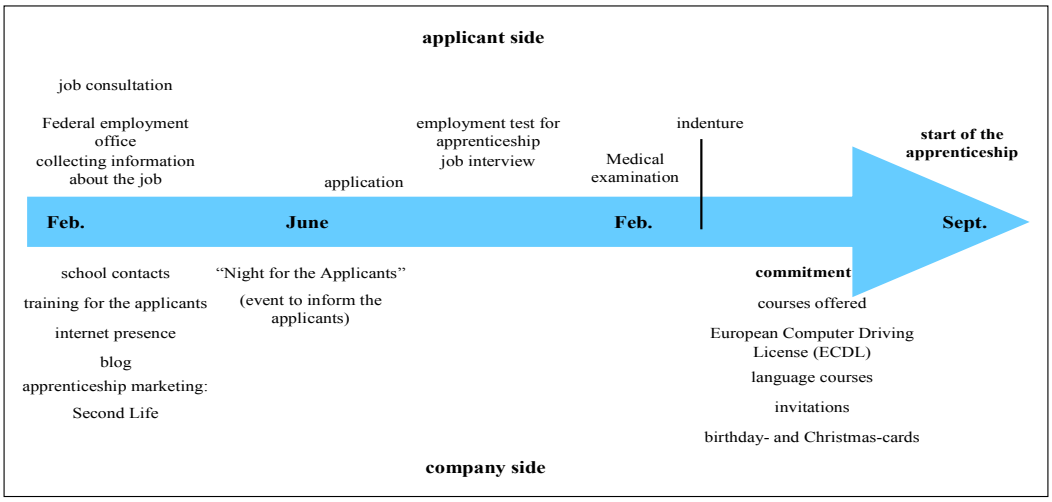

Figure 5: Flowchart of the strategy plan

In 1999 the company started to use the internet in its staff recruitment. At the same time they commissioned a survey from a polling firm about the use of media by its relevant target group, young people between 14 and 18 years old. The following results were achieved by this survey:

Many of the apprenticeship-applicants…

1. …find it difficult to use the internet
2. …do not have an internet access
3. …are strongly influenced by two peer groups, their parents and their friends
4. …do not know any of the companies that offer apprenticeships except for famous large-scale companies
5. …have little knowledge about the apprenticeship-place they apply for

To solve these problems the company decided to offer a fulltime service from the initial contact till the start of apprenticeship. Before starting to build up and implement an "Apprenticeship Employer Branding" they tried to solve the first two problems of insufficient knowledge of how to use the internet and unavailability of internet access.

Workshops to provide knowledge of how to use online application forms

In order to convince the young applicants and other relevant groups of the benefits of IT usage the company went directly to many schools in their catchment area with their training officers and training managers nearly one and a half years before the young people started their apprenticeships. In individual personal conversations all potential applicants, their teachers and parents were introduced by the use of practice performances to the ways that one can use the internet, what one can find on the internet and what the benefits of using the internet are. The company produced a brochure which showed the applicants the advantages of using the internet. Special IT-teachers provided by the company trained the applicants in internet usage and the preparation of an e-application with covering letter and CV. For the relevant groups of teachers and parents the company designed an in-house seminar to show these groups the advantages of IT use directly on the spot. This "Teacher-Parent-Internship" as it is called is a one week internship for parents and teachers in those departments in which their pupils and children would work.

Provision of internet access

Two-thirds of all people in Germany had internet access in 2006. For the applicants who did not have internet access the company provided access within the company in the form of an internet café. This internet café was offered every year when the company celebrated its "Applicants' Night". This open night was established in order to increase the number of participants in this event. The approach was successful: in total three times more applicants came to the night event. The company also used these events to train the applicants and their parents in internet usage. Several terminals were offered to the visitors as an internet café. Furthermore a group of instructors were available to give immediate support. They used this event to represent their company in an exciting atmosphere and additionally to help the applicants to use the internet.

Peer group attraction via websites and networking communities

As already mentioned, the young applicants for apprenticeship places were strongly influenced by two of their peer groups: their parents and friends. The company tried to use these facts to positively influence the applicants via their peer groups. Using the insights of a survey about the favourite websites of these groups, the company started to switch logo links and banners on these websites, which were directly connected with the website of the in-firm-training department. The results of this strategy were several advertisements in fitness and sports magazines as well as the websites of nationwide newspapers. With these logo-links and banners the company reached many of the fathers of the young applicants concerned. In a quite similar manner they also reached the mothers of young potential apprentices. Advertisements for the mothers were basically published on websites about cooking, furniture and in the internet pages of fashion journals and women's magazines. Finally the company also found a place where they could reach a lot of their applicants and their peer group of friends. In an age of increasing internet usage even the IT-averse applicants for apprenticeships started to use networking communities regularly. One web community was identified as an extremely effective recruiting channel. This community had about 700.000 members and 90 percent of them were between 13 and 22 years old. The members have to register initially in this community with their age, address and school leaving certificate. Because of this registration the company had the opportunity to communicate with their specific target groups. Advertisements for apprenticeships on this site only appear for the relevant target groups. The networking community was able to control the pop-ups of these advertisements in terms of which users they appear for and at what particular time they appear. With their company motto "Going new ways" the company also acted in the field of employer branding. This company was the first to advertise their apprenticeships in the biggest virtual world online-game secondlife.com.

Effective combination of online and offline marketing instruments

The problem for SME and other companies of the same size is to get as much attention from applicants in the job-seeking process as large-scale enterprises do. The company observed in our case study competed in a small catchment area with three different automotive producing companies of larger size. So they had to try different methods of finding a greater number of qualified applicants in a period of talent shortage among individual target groups. For example, in the city of their headquarters they went to a youth club for model makers. This group of young modelers built a track for model car racing. The company sponsored some guardrails for this track. In total, the company had to pay 20 Euro for these advertising boards for a period of twelve months. In the same year two members of this youth club were later recruited.

Virtual tour and online-blog to increase the corporate transparency

All campaigns on the internet using virtual games, networking communities or the websites of peer groups had just one objective, the link to the company's own website. The company had the same agenda in several offline actions, for example the already mentioned sponsorship of the youth club. The almost complete abandonment of job ads in the printed press permanently saved the company a large amount of money. This money was immediately invested in the improvement of their internet presence. One of the main problems for the applicants was that they had only a little knowledge about the apprenticeship places they applied for. So with the money thus saved the company developed a virtual tour around the in-firm-training department. In this way the applicants had the opportunity to see their possible future work station, the work processes, their colleagues, etc. The complex web portal was also enlarged by the first blog for apprentices of its style and form in Germany. The blog offered the opportunity for the apprentices to communicate with both sides of this process, the trainers and managers on the one hand and possible new colleagues on the other hand. The blog increased communication within all groups and helped to expand the transparency of the entire company. The blog was produced by two trainers and one female commercial apprentice. As a result, straightforward answers from the bloggers were not only appreciated but also expected by the applicants.

Case Study Results and Conclusions

Normally IT investments are measured primarily in financial terms, i.e. as a return on investment, but researchers have suggested using other measures as well. The use of only one individual measurement did not provide an overall view of all the benefits the use of IT could generate (Wu and Chen 2006). In our case we try to use more different measures, like matching quality of the applicant with the vacancy or the overall applicant quality. But such benefits are hard to quantify (Thatcher and Pingry 2004). To evaluate the achievement of objectives we analyse each objective in terms of its individual business value for the firm (Davamanirajan et al. 2006).

The first objective "Improving the overall quality of its applicants" could be measured by the number of applicants the company has to reject for an apprenticeship although their skills and school grades are good enough. Since 2003 the number of these rejected applicants has increased by 25 percent every year. The previously mentioned large-scale enterprises in the same industry in the same catchment area complained that, although they are bigger and more famous, the young applicants prefer to do an apprenticeship in the company observed in our case study. A slightly negative effect of the frequent IT-use in the recruiting process was a glut of applications for few candidate groups.

The second objective is related to the reduction in average recruiting process time and recruiting cost. In the past the whole time-to-hire lasted at least one week. Today the company has already achieved a time of 29 hours and 27 minutes including an inquiry about the apprenticeship places offered, the answer to this inquiry, an appeal to apply using the e-application form, the incoming application, the invitation to an employment test and the acknowledgment of participation in this test. To audit the objective of reducing costs the company calculated their break-even for incoming e-application forms compared to paper-based applications taking all fixed and variable costs into account. The result was a break-even of 400 e-application-forms. The quality of this figure is obvious against the background of 4.000 incoming applications on average for the apprenticeship vacancies every year. The savings of costs of paper and handling time could not only be traced back to the intensive use of e-application forms. Also the internal processes had to be adjusted to seize the chances the e-application form offers. The incoming e-application forms were stored in a new implemented internal database. This database allows the specialised divisions to participate in the selection process and improves the internal coordination and communication processes.

The third objective concerned the vision of a future paperless digital applicant management. Three years ago nearly 85 percent of all incoming applications were still classical paper-based applications. In the following year the number of electronic applications via e-mail or e-application-form increased to 50 percent. Last year the company achieved a complete turnaround. 85 percent of all incoming applications came via the internet. The goal set for this year is a rate of 95 percent digital applications. Even though paper-based applications are still permitted the vision of paperless digital applicant management is no longer unattainable.

Concerning the implications for scientific research we showed that the reluctance to use web-based systems of specific candidate groups in the recruiting process could depend on factors like the current career status. Furthermore we presented a case-study approach including an effective combination of online and offline instruments in order to overcome the IT-aversion of apprentices and to generate the value of IT investments in staff recruitment. The achieved results and described strategies within this paper base on the observed case of apprentices but should also be transferable to other IT-averse groups in the recruiting process. It is just a condition precedent in this context to adjust the strategies individually to other target groups.

Further Research

As already mentioned, the measurement of IT investments apart from financial dimensions is worth discussing (Wu and Chen 2006) and hard to quantify (Thatcher and Pingry 2004). Nevertheless in a strongly social and human process like HR financial measurements provide only limited conclusions about the value that IT generates. Therefore further research should deal with the quantification of significant measurements for IT investments in HR processes.

Moreover the case study we have carried out is just one example of how to generate value in HR-IT-related processes by combining investment in IT and complementary organizational investments in Germany. It would be useful to conduct more case studies about this specific subject in more companies within the mechanical engineering sector in order to see the impact of the efforts in this particular firm for the industrial sector as a whole.

References

1. Armstrong, M. “A handbook of personnel management practice”, *5th Edition*, 1995, London, UK, Kogan Page.
2. Barney, J. B. and Wright, P. M. “On Becoming a Strategic Partner: The Role of Human Resources in Gaining Competitive Advantage”, *Human Resource Management*, 1998, 37, 1, pp. 31–46.
3. Brynjolfsson, E. and Hitt, L.M. "Beyond Computation: Information Technology, Organizational Transformation and Business Performance", *The Journal of Economic Perspectives*, 2000, 14, 4, pp. 23-48.
4. Cappelli, P. "Making the Most of On-Line Recruiting", *Harvard Business Review*, 2001, 3, pp. 139-146.

5. Chapman, D. S. and Webster, J. "The Use of Technologies in the Recruiting, Screening, and Selection Processes for Job Candidates", *International Journal of Selection and Assessment*, 2003, 11, 2/3, pp. 113-120.
6. Davamanirajan, P., Kauffman, R. J., Kriebel, C. H. and Mukhopadhyay, T. "Systems Design, Process Performance and Economic Outcomes, Proceedings of the 39th Annual Hawaii International Conference on System Sciences" (HICSS'06), 2006, 8, pp. 150-160.
7. Devaraj, S. and Kohli, R. "Information Technology Payoff in the Health-Care Industry: A Longitudinal Study", *Journal of Management Information Systems*, 2000, 16, 4, pp. 27-67.
8. Devaraj, S. and Kohli, R. "Performance Impacts of Information Technology: Is Actual Usage the Missing Link?", *Management Science*, 2003, 49, pp. 273 - 289.
9. Dewar, R. D. and Dutton , J. E. "The Adoption of Radical and Incremental Innovations: An Empirical Analysis", *Management Science*, 1986, 32, 11, pp. 1422-1433.
10. Dyl, E.A. and Keaveny, T.J. "Cost minimization in staffing", *Human Resource Planning*, 1983, 6, 2, pp. 103–113.
11. Eckhardt, A., König, W., Keim T., Weitzel, T., Villa, D. and von Westarp, F. "Bewerbungspraxis 2007 - Eine empirische Untersuchung mit über 11.000 Stellensuchenden im Internet", *Working Paper*, 2006, pp. 20-55.
12. Eckhardt, A., König, W., Weitzel, T. and von Westarp, F. "Recruiting Trends 2007 - Eine empirische Untersuchung mit den Top-1.000-Unternehmen in Deutschland sowie mit Unternehmen aus dem Mittelstand und ausgesuchten Branchen", *Working Paper*, 2007, pp. 32-120.
13. Eisenhardt, K. M. "Building Theories from Case Study Research", *Academy of Management Review*, 1989*,* 14, 4, pp. 532-550.
14. Färber, F., Keim, T. and Weitzel, T. "An Automated Recommendation Approach to Personnel Selection", *Proceedings of the 2003 Americas Conference on Information Systems*, 2003, Tampa, Florida, USA.
15. Freeman, R. B. "The Labour Market in the New Information Economy", *Working Paper*, 2002, 9254..
16. Hatch, N. W. and Dyer, J. H. "Human Capital and Learning as a Source of Sustainable Competitive Advantage", *Strategic Management Journal*, 2004*,* 25, 12, pp. 1155-1178.
17. Henkel, H. "Personalmarketing war gestern, die Strategie für die Zukunft heißt Employer Branding", *VDI*, 2006, pp. 41, 25.
18. Hussain, Z., Wallace, J. and Cornelius, N. E. "The Use and Impact of Human Resource Information Systems on Human Resource Management Professionals", *Information & Management*, 2006, 10, pp. 1-16.
19. Keim, T., Malinowski, J. and Weitzel, T. "Bridging the Assimilation Gap: A User-Centered Approach to IT Adoption in Corporate HR Processes", *Proceedings of the 2005 Americas Conference on Information Systems*, 2005, Omaha, Nebraska, USA.
20. Keim, T. and Weitzel, T. "Strategies for Hiring IT Professionals: An Empirical Analysis of Employer and Job Seeker Behavior on the IT Labor Market", *Proceedings of the 2006 Americas Conference on Information Systems*, 2006, Acapulco, Mexico, USA.
21. Kirchgeorg, M., and Lorbeer, A. "Anforderungen von High Potentials an Unternehmen", *Arbeitspapier der Handelshochschule Leipzig (HHL)*, 2002, Nr. 49.
22. Lee, D. H.-D. "Contextual IT Business Value and Barriers: An E-Government and E-Business Perspective", *Proceedings of the 38th Annual Hawaii International Conference on System Sciences (HICSS'05)*, 2005, 5, 129.
23. Lee, I. "Evaluation of Fortune 100 companies' career web sites", *Human Systems Management*, 2005, 24, 2, pp. 175-182.
24. Lee, I. "An integrated economic decision and simulation methodology for e-recruiting process redesign", *International Journal of Simulation and Process Modelling*, 2005, 1, 3/4, pp. 179-188.
25. Li, M. and Ye, R. "Information technology and firm performance: Linking with environmental, strategic and managerial contexts", *Information & Management*, 1999*,* 35, 1, pp. 43-51.
26. Lu, Y. and Ramamurthy, K. "Does Information Technology Always Lead to Better Firm Performance? The Role of Environmental Dynamism, in Ritu Agarwal, Laurie J. Kirsch and Janice I. DeGross (Eds.)" *Proceedings of the 25th International Conference on Information Systems (ICIS)*, 2004, Washington, D.C., USA.
27. Melville, N., Kraemer, K.L. and Gurbaxani, V. "Information Technology and Organizational Performance: An Integrative Model of IT Business Value", *MIS Quarterly,* 2004*, 28*, 2, pp. 283-322.
28. Milgrom P. and Roberts J "Complementarities and fit Strategy, structure, and organizational change in manufacturing", *Journal of Accounting and Economics*, 1995, 19, 2, pp. 179-208.
29. Olfert, K. "Personalwirtschaft", *10th Edition, Friedrich Kiel Verlag GmbH*, 2003, Ludwigshafen, Germany.
30. Peppard, J. and Ward, J. "Beyond strategic information systems: towards an IS capability", *Journal of Strategic Information Systems*, 2004*,* 13, 2, pp. 167-194.
31. Peteraf, M. "The Cornerstones of Competitive Advantage: A Resource-Based View", *Strategic Management Journal*, 1993, pp. 171-191.
32. Pett, J. "Auf der Jagd nach Erfahrung", *Personalmagazin*, 2006, pp. 11, 24.
33. Powell, T. C. and Micallef, A.D. "Information Technology as Competitive Advantage: The Role of Human, Business and Technology Resources" *Strategic Management Journal*, 1997, 18, 5, pp. 375–405.

34. Ramlall, S. "Enhancing the effectiveness of HR through the integration of IT", *International Journal of Business & Economic Research*, 2003, 64, 78, 224.
35. Raymond, L. "Organizational Context and Information Systems Success: A Contingency Approach", *Journal of Management Information Systems*, 1990*,* 6, 4, pp. 5-20.
36. Reich, B. H. and Benbasat, I. "Measuring the Linkage Between Business and Information Technology Objectives", *MIS Quarterly*, 1996*,* 20, 1, pp. 55-81.
37. Schiller-García, J. "Personalmarketing und Internet", 2006, Berlin.
38. Stroh, L. K. and Caliguri, P. M. "Strategic Human Resources: A new Source for Competitive Advantage in the Global Area", *The International Journal of Human Resource Management*, 1998, 9, 1, pp. 1-17.
39. Thatcher, M., and Pingry, D. "Understanding the Business Value of IT Investment: Evidence from Alternative Market and Cost Structures", *JMIS*, 2004, 21, 2, pp. 61-85.
40. Yin, R.K. "Case Study Research. Design and Methods Applied social research methods series", 2003, 5.