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# Use of technology in the recruitment process

Norwegian and Polish HR Market trends



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BACHELOR'S THESIS (TUAS) | ABSTRACT

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**TITLE OF THESIS:** What is the use of Technology in the recruitment process?

Use of technology in Human Resource Management has become quite widespread and is continuously growing. HRM (Human Resource Management) is an extensive department and have many different roles in the organization including the recruitment of the new candidates. The diverse roles of Human Resource Management make it more dependent on the use of technology according to the respective needs of its processes.

The objective of the study is to assess the use of technology in the recruitment process. The study also shows the comparison of the market trends between two markets. It is actually the comparison of developed (Norway) and developing (Poland) HR (Human Resource) markets. The research was conducted via questionnaire.

Moreover, the literature of the research was taken from electronic sources and some text books. It works as the background of the questionnaire research. The results from questionnaire show that there is a growing trend of the use of technology in the recruitment process. Furthermore, many recruitment companies believe that it is important to be a part of international recruitment networks while practically there are less number of companies who are actually the part of international recruitment networks. Results also indicate that Norwegian recruitment companies are using more technologies in the recruitment process as compare to Polish recruitment companies. The trends suggest that Norway is developed in HR globe (Human Resource Globe) while Poland is still developing.

**KEYWORDS:** recruitment process, human resource management, technology

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# 1. INTRODUCTION

## 1.1 Background to the research

Technology use in Human Resource Management has become quite widespread and is continuously growing. HRM is an extensive department and is indulged in many different processes and responsibilities of the organization. Human Resource Management is responsible for recruiting new candidates, staff training, organizational decision making, payroll system, scenario planning and business operational management. The diverse roles of HR make it more dependent on the use of technology. The managers and the users of the technology make the best use of it. It is helpful to off burden their workloads thus helping them to concentrate on the other issues of the organization. Managers could rather use their capabilities, competencies, strengths and time in some productive and critical subjects of the organization where more human attention is required.

This paper focuses on the use of technology in the recruitment process. The research was conducted via questionnaire. The research however covered the limited technologies i.e.

1. Software tools used in the recruitment process
2. International recruitment networks

These are the most recent and continuous developing technologies. Moreover, the background highlights the minor technologies used in the recruitment process. The paper also includes the two background chapters to support the research. The background material is taken from different sources but ideas are generally derived from these sources not been directly copied.

The questionnaire results have two major outcomes. There are the following:

1. It shows the trends of the use of technology in the recruitment Process
2. Comparison of two different HR markets i.e. Norway and Poland

This data could be very useful for many newborn or established search firms /recruitment companies in order to expand their business through networking or independently. Furthermore, this could be helpful for the recruitment software developers to continue to create their ideas into inventions and give out the competitive edge to the HR industry. Lastly, business leaders could use this data to view market situation and make profitable investments.

## 1.2 Outline of the thesis

This paper contains six chapters: introduction, different sources of recruitment, types of technologies use in the recruitment process, methodology, research results from questionnaire and conclusions.

After introduction, the second chapter is the sources of the recruitment. There are two sources of recruitment and they have many subtypes also. The third chapter is the types of technologies used in the recruitment process. The second and third chapters are the background that supports the research of the questionnaire. The second chapter describes the recruitment process by explaining its types where technologies can be used and the leading chapter includes the technologies used in the recruitment process. This back ground is created by using different sources written by earlier researchers.

*(Idea derived from the following sources:Sheikh, Chand, 2003, 41-45; Noe Hollenbeck Gerhart Wright,2004,156-163;Gibb, 2007,119-211;Bernardin,2007,117-155 and Cascio,2007,208-227)*

The questionnaire research was carried out in four different European countries and 25 recruitment companies were successfully interviewed in each market. Thus, the total sum is 100 European recruitment companies that I interviewed. The research countries were Norway, Poland, Belgium and Netherlands. However, I have included only two countries of research in this paper meaning the results are from 50 recruitment companies. The countries that I included are Norway and Poland. Due to the fact, it is easier to show the trends from two markets.Furthermore, Norwegian and Polish HR markets have a good comparison too. Norwegian HR industry is developed while Polish HR industry is still developing. However, there are some trends that are same between these two markets.

The questionnaire research was mainly about the use of software tools/technology in the recruitment process and networking of the recruitment companies with international recruitment networks. There are different trends obtained from different European recruitment markets.

The fourth chapter is 'methodology'. It contains the background of the research and explains the research/data collection method used in the research. It also includes the problems that were faced during the research and the personal gains obtained as a result of this research.

The fifth chapter consists of the figures (pie charts) and their explanations resulted from the questionnaire. The figures show the findings of the research. This topic is the essence of the whole paper. The results have been analyzed with due care to give out the accurate findings. The sixth and the last chapter is the conclusions that give the all the conclusions drawn from the paper.

### 1.3 Definitions

*"E-HRM is in essence the devolution of HR functions to management and employees. They access these functions typically via intranet or other web-technology channels. The empowerment of managers and employees to perform certain chosen HR functions relieves the HR department of these tasks, allowing HR staff to focus less on the operational and more on the strategic elements of HR, and allowing organizations to lower HR department staffing levels as the administrative burden is lightened" (Wikipedia, consulted 02.06.2010, <http://en.wikipedia.org/wiki/E-HRM>)*

The above definition is the empirical evidence of the use of technology in HR. This explains clearly the use of intranets and web-technology in the development of E-HRM. The basic technology is internet that led to the term and process of "E-HRM". The development of E-HRM off burdens the workloads of the managers and let them concentrate on the issues of the organization where more human attention is needed.

*"E-HRM is a way of implementing HR strategies, policies, and practices in organizations through a conscious and directed support of and/or with the full use of web-technology-based channels. The word 'implementing' in this context has a broad meaning, such as making something work, putting something into practice, or having something realized. E-HRM, therefore, is a concept - a way of 'doing'*

*HRM” (IndianMba, Consulted 02.06.2010*  
*[http://www.indianmba.com/Faculty\\_Column/FC555/fc555.html](http://www.indianmba.com/Faculty_Column/FC555/fc555.html))*

This definition is more elaborative and gives broad and general overview of E-HRM. It can be interpreted in many different ways. In the case of this paper, it would be more focused on the recruitment process. 'Making something work' could be put as web-recruitment making recruitment possible by using web-technology, 'putting something into practice' could be interpreted as huge massive use of web-recruitment by companies and lastly 'having something realized' could be explained as the identification of the term E-HRM and it could be also that now there is so much ongoing research on this perspective of HR.

## 2. SOURCES OF RECRUITMENT

The sources of recruitment form the background of the research. It is important to understand what recruitment is and how it works. This background constitutes the better understanding of the questionnaire questions. These sources work as the platform where technology works/operates for the recruitment process.

“Recruitment is the process of attracting applicants for the positions needed.”  
(Bernardin,2007,117).

It is the difficult strategic decision for HR where to look for applicants. It depends upon the geographical location, nature of job, level of hierarchy in the organization e.g. entry-level/managerial level, labor market, labor union etc. This decision is taken after long job analysis for the position.

Recruitment process should be communicative with HR planning process because they are interrelated. Due to the fact, HRM is responsible for the strategic and scenario planning and well aware of the organizational needs. Other departments of the organization such as IT, Marketing, logistics, and Business development/expansion department contact the HR department to fulfill the vacant position with the new candidate in respective department. The relevant unit gives detailed description of job criteria to the HR department. Therefore, the HR responds to their demands by making use of different sources of recruitment. There are two types of recruitment; internal recruitment and external recruitment.

*(Idea derived from the following sources: Sheikh, Chand, 2003, 42; Noe Hollenbeck Gerhart Wright,2004,156;Bernardin,2007,126)*

### 2.1 Internal recruitment

Internal recruitment is the recruitment within the organization. It is the promotion of the employees to the higher level in the organization to the vacant positions. In addition to this, it is also the transfer of the employees to the different positions. This action does not usually change the status, duties and salaries. On the contrary, promotion allows an increase in job status, salaries and duties. Internal recruitment can be done through job postings within the organization on bulletin

boards, employee publications, intranets or where organization can communicate with its employees.

There are certain advantages and disadvantages of this type of recruitment.

#### 2.1.1 Advantages:

1. It is less costly than external recruitment.
2. Better knowledge of internal applicants' abilities and skills than the external pool of talent.
3. Internal recruitment will enhance the organizational commitment and job satisfaction.
4. The employee is well aware of the organizational environment and would perform his duty successfully without hesitation.
5. Promotions in job boost the confidence in the employees thus guarantying successful performance of job.

#### 2.1.2 Disadvantages:

1. Promotion could be painful for those who are not promoted, so the morale could be down.
2. Change is sometimes essentially important for the organization and the continuity is not beneficial for the organization.
3. It hinders the new ways of doing things and the same mistake can be repeated with the persistent actions and decisions of managers.
4. Internal recruitment politics might have the greater effect on internal recruiting and selection than external recruiting.

*(Idea derived from the following sources: Sheikh, Chand, 2003, 42; Noe, Hollenbeck, Gerhart and Wright, 2004, 156; Bernardin, 2007, 126 and Cascio, 2007, 208)*

## 2.2 External Recruitment

External recruitment is the recruitment that is done outside the organizational pool of talent. It is done when the firm looks for their vacancies outside the organization whose job specifications and skills are not matched within the organization. Many scholars argue that it is the introduction of the new ideas and thinking in the corporate decision making process.

There are the following external sources of recruitment.

1. Open Applications
2. Recommended/ Referred Applicants
3. Recruitment through advertisement
4. Employment Agencies
5. College/University Recruitments
6. Recruitment Companies
7. Electronic Recruitment

### 2.2.1 Open Applications

Open applications are unsolicited applications. They are usually the casual callers and walk-ins who submit their applications for open pool of jobs. They are in search of jobs, and they contact employers for the future job vacancies. Employers can later use the applications if they match their job specifications and criteria.

Many companies scan resumes or applications on computer or web searches to get quick information of the candidates that are suitable for the vacant position. Search engines software are now much faster and are more efficient in retrieving relevant data e.g Monster's 'TARGET REACH' gives resume by company's criteria.

*(Idea derived from the following sources: Sheikh, Chand, 2003, 42; Bernardin, 2007, 127 and Cascio, 2007, 209)*

### 2.2.2 Recommended/ Referred Applicants

They are those applicants who apply for a vacancy because someone motivated them to do so or it is the recruitment done by the recommendation of the current employees whom they think that their qualification can fulfill the vacant position.

"According to a recent survey of large companies, the largest share of new employees hired (about-one third) came from referrals, the next largest share (30 percent) came from online applications, about half of which were direct applications made at the employer's website."(Noe, Hollenbeck, Gerhart and Wright,2004,56)

The referred candidates have more understanding of job position and also the organization. Furthermore, it cost much less than formal recruitment. Some employers offer financial incentives to the current employees for referring applicants for the limited period of time e.g. for 180 days. However, the referrals hinder the exposure of the organization to the outer viewpoint.

### 2.2.3 Recruitment through advertisement

It is the most common method of attracting the applicants for the job vacancy, ranging from the small classified in the newspaper to the elaborative media campaign on television, radio and internet websites. It can be more specific about the geographical area, labor market and job opportunity. The ad should be carefully structured and designed with appropriate wording. It should contain the job specification, job description, salary, qualifications etc so that the only right type of applicants apply for the job vacancy.

*(Idea derived from the following sources: Sheikh, Chand, 2003, 43; Noe, Hollenbeck, Gerhart and Wright,2004,159;Bernardin,2007,141 and Cascio,2007,214)*

<b><u>Medium</u></b>	<b><u>Advantages</u></b>	<b><u>Disadvantages</u></b>
Internet	Global Reach Fast Processing Relatively inexpensive Appeals to youth Technologically Savvy More Information about the job	Many unmotivated applicants Diversity problems Not effective for low-skilled jobs Spam class (if e-mails)
Newspaper/ Magazines	Local Audience Tailored to audience Specialty outlets Good Circulation Good yield ratios for low-skilled jobs.	Often ignored/ not seen Expensive Long lead time
Television/ Radio	Targeted locally More attention to Ad Can attract people not seeking job.	Very expensive Longest lead time Less Information regarding jobs.
Direct Mail	Can be well-targeted with good list.	Expensive( for better mailing lists) Very long lead time.

Table.1:Advantages and disadvantages of recruitment media (Noe, Hollenbeck, Gerhart and Wright, 2004,142)

This table explains well about the advantages and disadvantages of the different sources of recruitment. It is easier to understand the use of different sources with the aid of this table.

#### 2.2.4 Employment Agencies

Some countries try to ensure that unemployed individuals get off from the state benefits. To accomplish this they try to collect information from the unemployed people about their skills and experience. Employers can register their job vacancies with their local state employment office and the agency will try to find someone suitable using their job database of local unemployed individuals.

The agency refer the candidate to the employers free of charge and the agencies get their funding from government and in some countries there is only the state employment office run by the government providing with the same functions.

*(Idea derived from the following sources: Sheikh, Chand, 2003, 43 and Noe, Hollenbeck, Gerhart and Wright, 2004, 161)*

#### 2.2.5 College/University Recruitment

Some colleges and universities provide placement services that help the fresh graduates to find jobs. This type of recruitment is also an important source of recruitment for entry level and managerial vacancies. Several organizations focus more on the well reputed universities and colleges to hire the best talent for their organizations.

The university job fair is also an enhanced way of college/university recruitment. It is the event where many employers get together for a short time to meet potential job applicants. Job fairs are low-cost event to produce college/university recruitment.

Internships programs with universities are also a useful strategy for the students and the organizations. It helps the students to build up strong career and good relation with the university and organization. In addition to this, video interviewing is also a better option of college/university interviewing, through internet, however it is an expensive method of

recruitment. Now the question arises, what method of recruitment is expensive either the campus interview or the online video interview.

*(Idea derived from the following sources: Sheikh, Chand, 2003, 43; Noe, Hollenbeck, Gerhart and Wright, 2004, 162; Bernardin, 2007, 144 and Cascio, 2007, 212)*

## 2.2.6 Recruitment Companies

Recruitment companies are private recruiters that help their client companies to recruit employees. These firms specialize in executive recruitment of specific occupations e.g. IT, nursing, psychologists, engineers. Recruitment companies should have the recruitment strategy in writing in order to obtain the strong foundation and a structure to follow.

Furthermore, some companies charge fees from the applicants to apply for the job vacancy that limits the qualified applicants to apply for the vacancy. Moreover, many companies are doing outsourcing these days. Outsourcing in HR is when the companies outsource their HR department to the recruitment companies. These firms are responsible for all sorts of recruitment of the client company.

Recruitment companies are also known as headhunters or the executive search companies. Their job is to look for the managers or CEOs for the client companies. Executive search can be sensitive for job candidates, because it could have a negative impact on the current employers.

Recruitment firms, headhunters and executive search firms' details are available on the job websites and the managers from different companies can locate these firms in several databases. They become available when search firm's representative provides their geographical specifications, services, charges and other related aspects of the firm in the database. This service is free of charge for all search firms and as well as for the searchers (potential client companies who look to outsource their recruitment to these firms).

*(Idea derived from the following sources: Sheikh, Chand, 2003, 44; Noe, Hollenbeck, Gerhart and Wright, 2004, 162; Bernardin, 2007, 143 and Cascio, 2007, 213)*

### 2.2.7 Electronic Recruitment

“One survey suggested that over 80 percent of the organizations use web recruit.” *(Bernardin, 2007,147)*

There are large numbers of databases filled with huge amount of resumes and CVs. Companies use these databases to do their recruitment though advertising their vacancies on job boards e.g. Monster, Job cafe, Mol.fi

“Forbes Magazine named Monster the best job hunting site on the web based on its design, navigation, content, speed and customization. It is also estimated that 94 percent of global 500 companies are now posting jobs on their websites. Some companies accept only online applications.” *(Bernardin, 2007,147)*

Nowadays, there are competent software tracking systems available that can search with large amount of different search key words making it easier for job seekers and employers to use the website. A user-friendly website is not complicated. It should be properly advertised and include adequate material about the job vacancy so that the job seeker/ applicant can apply with the right qualifications and skills and is well informed about his job duties.

Moreover, smaller companies should not rely on their (company owned website) web recruitment because people are less aware of their company and they cannot get attract enormous quantity of right applicants. These types of companies should rather advertise on job boards such as monster, career builder etc. However, there is a drawback of these websites that they serve large number of employers and job seekers that affect negatively on its quality because they do not target one segment.

Therefore, there are job boards known as niche boards that are useful to overcome such problems. Niche Boards are tailor-made websites that focus only on certain industries, occupations and geographical areas.

*(Idea derived from the following sources: Noe, Hollenbeck, Gerhart and Wright, 2004, 160; Bernardin, 2007, 147 and Cascio, 2007, 220)*

## 3. TYPES OF TECHNOLOGY USE IN THE RECRUITMENT PROCESS

“Technologies are the practical applications of science, equipment used to support learning”. (*Gibb, paragraph, 2007, 200*)

Technology can change the whole scenario of doing things. It introduces the modern ways of handling and dealing the matters. Similarly, technology development has also caused major changes in the recruitment process. It changed the paper, pen, file era into the electronic portfolio application i.e. through internet and e-mails.

Technologies used for the recruitment are the following:

1. Computer
2. Telecommunications,
3. Job boards and databases
4. Software and hardware supporting such databases
5. Video Interviewing
6. Internet technologies

*(Idea derived from the following sources: Gibb, 2007, 205 and Bernardin, 2007, 147)*

### 3.1 Computers used in recruitment Process

Computers are the basic technological advancement that can be used for any work-related purpose. They are the key technology that leads the modern processes and new methods of recruitment. In recruitment process, it is used to enter and manipulate applicants' or job seekers' information and also use to design and implement job advertisement.

Microsoft Excel is the basic program in computers used for the recruitment. It facilitates the process. It can store the large amount of data and it is faster, efficient and reliable. Its functions are suitable for the recruitment process e.g. it sorts out quickly the relevant data of the applicants for the employers or the recruitment companies. Although, there are now large advancements in technology and variety of tools are available for recruitment. We will examine them soon in the paper.

*(Sources: Own research via questionnaire, some Polish companies use Microsoft Excel for the recruitment process)*

### 3.2 Telecommunications

Telecommunication involves telegraph, telephone, radio and television, fax, mobile phone communications, internet and as well as satellite communication. Ways of communication called telecommunications. All means of telecommunications have been utilized in the recruitment process in all times.

In early times, people used to telegraph for sending messages; therefore, it was also used in the recruitment process for job calls and interviews. In addition to this, telephone was the direct contact apparatus, one can use it to ask or tell about the available jobs.

With the passage of time, there have been advancements in telecommunications, radio and televisions were developed. These have been and are still used for job advertisements.

Currently internet, mobile phones e-mails and faxes are extensively used in the recruitment process. These are the further developments in telecommunications and are now commonly used in the recruitment process.

*(Idea derived from the sources: Wikipedia, consulted 18.04.2010 <http://en.wikipedia.org/wiki/Telecommunication> and Gibb,2007,205)*

### 3.3 Job boards and job boards' databases

Job boards databases work as old applicants' file storage place in the recruiters or HR managers' office. It contains large amount of resumes and CVs of applicants from diverse fields of professions, qualifications, skills and educational back grounds.

*"The top ten job boards are Career Builder, Cool Works, Jobfox, LinkedIn, LinkUp, Monster, Realmatch, SimplyHired, USAJobs and Yahoo! Hot Jobs." (Best Management articles, consulted 19.04.2010, <http://management-consulting.bestmanagementarticles.com/a-37226-top-ten-job-boards.aspx>)*

All job boards serve the same purpose but are slightly different from each other. For instance, some job boards only advertise the seasonal jobs or summer jobs e.g. LinkUp , while a large range of job boards are responsible to get together all the classified job ads/postings from different companies' website at one place (Job boards). Besides this, several job boards are career networking sites that help job seekers to meet professionals who could help them to find jobs by giving them information about different companies such as Linked In.

Users of the job boards usually have to register on the website by giving their e-mail addresses. After their registration on the website, they could enter their resume and CV in the database. Furthermore, Job boards offer a feature that the job seeker can set their own settings and criteria for job availability alerts and notifications that they can receive through e-mails or instant messaging.

### 3.4 Software and hardware supporting such databases

There are number of recruitment software available in the market and on different websites. These software make the process easier and ease down the work load of recruiters and the HR officers. It is significant to know how these software actually functions for the recruiters/users and they make the best use out of it.

Easy Recruit Personal Edition© is competent software for the recruitment. It is single user software that provides the complete solution to reorganize recruitment business. Furthermore, it is much time saving and user friendly invention specifically designed to reduce the work load and replace manual activities with the automatic system involved in the process.

'It includes resume importer, resume scanner for auto-filling of candidate details, exhaustive criteria based candidate matching, interview scheduling, customizable invoicing, contact book, POP3 email client, task manager with popup reminder, backup-restore facility, document attachment facility with client profiles, and skin changer. Easy Recruit surely takes off entire process work-load from your shoulder. It simplifies and organizes the human resource business giving instant growth in profitability.'*(Easy Recruit Personal Edition©, Consulted 19,04,2010, <http://www.fileheap.com/software-easy-recruit-personal-download-46293.html>)*

This software is good example to show how recruitment software works and what types of features they usually include.

In addition to this, there are many other types of software available that are actually the databases or software supporting such databases. For instance, an apparatus invented by Raymond Anthony Joao, responsible for providing job searching services, recruitment services and/or recruitment-related services.

It is an apparatus that has a memory tool that keeps information concerning a job opening, position, assignment, contract, or project, and information regarding a job search request or inquiry. Besides this, it has a processing tool that processes the information regarding a job search or request. If it finds a job posting by at least one employer, it automatically detects the happening of the searching event, and generates a message containing the information regarding a job opening, position, assignment etc, and a transmitter which transmits the message to a communication device associated with an individual. In other words, when job seeker search for the job and he/she enters the search key words, the system quickly look for the job postings available and displays the results on the screen of the job seeker or user of the apparatus. This apparatus is used casually on different job boards, though there are several in the market may be more enhanced or little inferior.

*(Idea derived from source: Patents, consulted 22.04.2010.  
http://www.faqs.org/patents/app/20090083235)*

There are many types of recruitment software accessible in the market. However, there is no specific hardware used in the process. There are just normal PCs, laptops, input devices and headphones (used to make calls for headhunting).

### 3.5 Online Video Interview

Online video interview is also a big technological tool that is used in the recruitment process. It is used to take online interview of the selected candidates. It is a direct face to face contact method. However, it is debatable if this technology is more helpful or unhelpful, due to the fact, it is not the direct eye contact and it could be deceptive to make decision about the candidate. The candidate might cheat during his interview because the employer is not aware of the actual environment surrounded by the candidate.

On the other hand, hiring wrong candidate would be harmful for the organization. Secondly, it wouldn't be fair with other candidate who might deserve the designation would miss the opportunity to get the right position.

There are number of software available for online video interview such as MSN, Skype, Yahoo, Nefsis, and Google Talk etc.

Nefsis allows the sharing of desktop, web browsers and PowerPoint presentation with multi point online video interview (videoconferencing) feature. It is a compact package for business organizations' remote online video interview. However, it could be expensive for the company to use for recruiting new candidates because it is a paid plan per month. Nevertheless, companies are usually willing to invest more in order to harvest the best results out of their cultivations.

*(Idea derived from the source:Nefsis, consulted 22.04.2010, <http://www.nefsis.com/index.html>)*

Besides this, webcam is the main hardware that is used for online video interview, without it is not possible. The technological issues can hinder its utility e.g. problem in PC or internet can make it complicated rather than useful technology. Sometimes older people or people belong to different culture feel difficulty in using the technology. Therefore, it can be suitable in the recruitment process and also unsuitable depending on the organizational environment and cultural values of the country and as well as the literacy required for the use of new technology. However, mainly, the use of video conferencing is encouraging and is mostly used in the successful organizations for hiring candidates.

### 3.6 Internet Technologies

Internet is the base or mother of all inventions that are used in the recruitment process. Websites, job boards, job databases, job postings, video conferencing e-mailing is all due to the invention of internet. These technologies were developed after the advent of internet.

Internet reshaped the communication by creating blogging, websites, instant messaging, networking sites, VoIP, etc. People look for the job postings on internet through internet. Employers post job postings through internet and search for the

relevant resumes in online databases by using internet. Thus the whole game is of internet.

“ Internet is a global system of interconnected computer networks that use the standard Internet Protocol Suite (TCP/IP) to serve billions of users worldwide. It is a network of networks that consists of millions of private, public, academic, business, and government networks of local to global scope that are linked by a broad array of electronic and optical networking technologies. The Internet carries a vast array of information resources and services, most notably the inter-linked hypertext documents of the World Wide Web (WWW) and the infrastructure to support electronic mail.”

*(Wikipedia, consulted 22.04.2010, <http://en.wikipedia.org/wiki/Internet>)*

This definition is the self explanatory. Due to the establishment of this technology of networking, further technology advancements took place in the past and are in continuous growing process

## 4. METHODOLOGY

### 4.1 Background

I carried out this research when I was doing my internship with an HR company called Talentor International Oy. I worked there as an assistant to Business developer manager. In 2007 it was a young company and was growing in the local market (Finland) and as well as in the international market (Europe). I was responsible to look for their potential partners in the European market.

During my internship I carried out the research on 4 different European countries namely Belgium, Norway, Poland and Netherlands. The reasons behind this research were to find the potential partners of Talentor International Oy and the research findings could also provide me the topic for my thesis work.

I was responsible to interview 25 different recruitment companies each market/country meaning 100 recruitment companies in total. The interview was carried to find out the interests of the companies in using software tools (technologies) in the recruitment process and their interest in joining the international recruitment network. The answers to these questions were helpful information for my company (Talentor) to find the companies' interest (research target companies) and offer them to be their potential partners. Moreover, these interviews also gave me the path to follow for my thesis work. The outcomes of these interviews gave me different market trends of the use of technology in the recruitment process and also the comparison amongst markets.

I searched for the recruitment companies and their contact details located in Europe through yellow pages, Google.com and Yahoo Yellow pages. I worked about 9 months on this project and had successfully interviewed about 100 European companies.

I have gathered some work done by different researchers (see references) and have added my own research work too in this paper. The earlier research work by different researchers is the background to my own research. This paper explains the types of recruitment and the use of technology in the recruitment process.

My additional work confirms the work of the earlier researches and also tells the different trends of the technological development in developed and under developing recruitment market. I would represent the comparison of Norwegian and Polish recruitment market in next chapter.

#### 4.2 Research methods

It is a qualitative research method used in the research. We targeted small medium sized recruitment companies. Our target was to make them the part of Talentor International Oy. We interviewed about 100 different recruitment companies. The research countries were Norway, Poland, Belgium and Netherlands.

I designed a questionnaire formulating questions about what kind of databases or software companies are using in the recruitment process. Besides this, are they a part of any international recruitment network like LinkedIn etc? It also included the questions about their interests in using the software or databases in the recruitment process in future and lastly would they like to be a part of any network in future or not. The questionnaire was comprised of both quantitative and qualitative questions. Some questions just required yes or no answers some required only numbers and a few really important questions required in-depth answers. The questionnaire was drafted on Microsoft Excel file because it is easier to see the results on it. I used to e-mail the same file to the managers or the CEOs if they were busy to give answers on phone. The idea of questionnaire might give an illusion of the quantitative research method not an in-depth interview; however, it was the combination of both. Though, we productively managed to retrieve the answers what we were required.

I had interviewed 100 recruitment companies in four different countries but I have included in this paper only two countries Norway and Poland meaning the data from 50 recruitment companies. Due to the fact, Norway and Poland has a good comparison; Norway being developed HR market and while Poland is still developing (outcome of my own research).

Moreover, I contacted 45 recruitment companies in Norway, 25 answered, 12 refused to answer and 8 awaited the replies through e-mail. Whereas in Poland, I contacted 30 recruitment companies and none refused to answer, however, 5 never replied because questionnaire was sent them by e-mail. I used to e-mail the questionnaire when the CEOs or senior managers were busy to answer and ask me to send them the questions by e-mail. It is good to remember that we were targeting about 25 successful interviews each market.

The main highlights of the questionnaire are following questions:

1. How many employees does your company have?
2. Are you using software tools (e.g. recruitment media, cv database, erp) to enhance efficiency in the recruitment?
3. Are you interested to use software in the recruitment process in the future?
4. Are you part of an international recruitment network?
5. How important do you see to be part of a recruitment international network?

#### 4.3 Problems and hindrances during the research

The research was based mainly on phone call interview because many companies were not interested to answer the questionnaire at all. Therefore, it was easier to exclude that contact from the list of contacts.

Most of the time people were not free to answer right away because they were rather busy in meetings or on a journey or out for lunch break. However, they promise to answer through e-mail, so I used to get many answers via e-mails too.

It was too long and lengthy sometimes really frustrating process, because many companies put on hold for weeks and weeks and promise to send answers by late evenings and they ended up in never sending the answers or sending them so late that the research was really slow.

One market took several months because it was not easier to find the right companies (SMEs) with right contact details. On other hand, companies were really careful rather

reluctant to give out their internal information of the organization. They were scared to share the minor details of their company. They had a feeling that the competitor might be trying to get access to their internal information or secrets of the company. For instance, they were hesitant to tell what software they are using etc. They might have assumed that competitor is trying to assess the efficiency of their technology use in the recruitment process in order to get ahead of them in the industry. Although, I used to introduce them myself first and explain them the purpose of the call.

#### 4.4 Personal gains out of this research

However, it was very energetic and enthusiastic learning process for me because it boosted my confidence professionally. It encouraged me and provided me the opportunity to interview the CEOs of recruitment companies of different European countries.

Moreover, it enhanced my language search skills, because I was not aware of the languages of the respective countries but I managed to find the recruitment companies through all local yellow pages and websites using different language tool

## 5. RESEARCH RESULTS FROM QUESTIONNAIRE

Norway

How many employees does your company have?

1=<5

2=5-10

3=>10

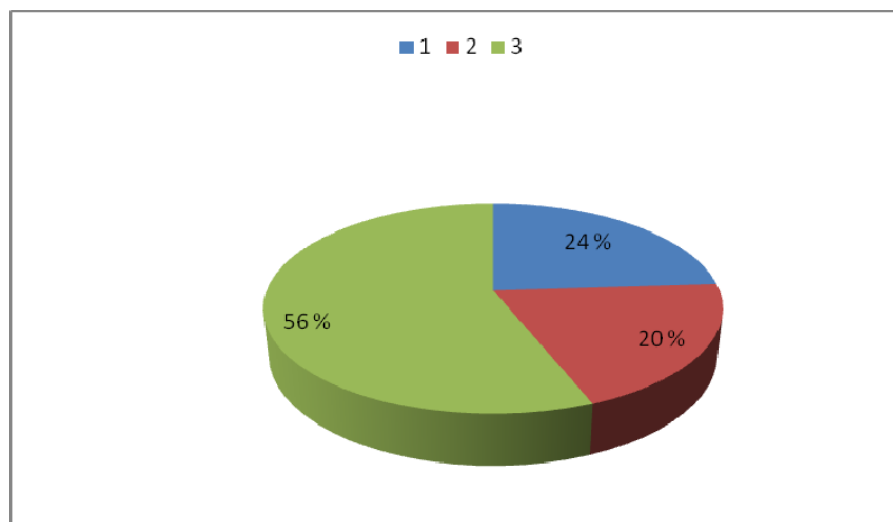


Figure:1 (Questionnaire results: Market trends from Norway)

This figure shows the percentage of number of employees in Norwegian companies. The targeted companies were SMEs. It gives the percentage of the company that has 5 employees, more than 5 or more than 10 employees.

So the result obtained in percentage is as follows:

1. 24% of the companies have five employees
2. 20% of the companies have more than five employees

3. 56% of the companies have more than 10 employees

This question was the fundamental question in order to know the growing trend of use of technology in recruitment process. Due to the fact, bigger companies can or usually have the fast and modern technology and ways of performing daily operations.

However, new born or young firms give the insight of the matter.

Norway

Are you using any software tools to enhance efficiency in the recruitment?

1=Yes

2=No

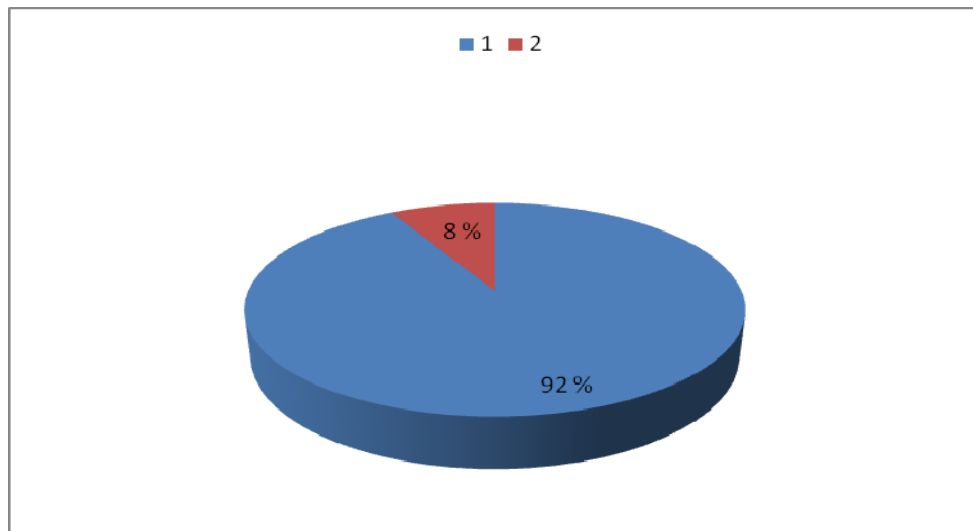


Figure:2 (Questionnaire results: Market trends from Norway)

According to this figure, it shows that majority (92%) of the recruitment companies are using software in the recruitment process. However, only about 8% are not using any software. This figure proves that in developed countries technology is being used in abundance in the recruitment process and it is enrooted in this sector. This is somehow proved because the research was carried out on SMEs (small medium sized enterprises).

Norway

Are you interested to use software in the recruitment process in future?

1=Very Interested

2=Interested

3=Could may be consider

4=Not interested at all

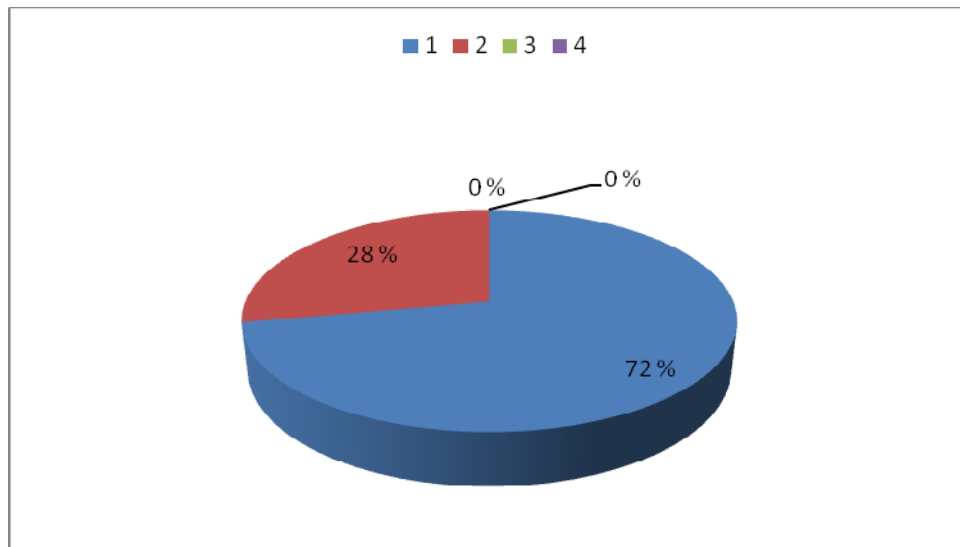


Figure:3 (Questionnaire results: Market trends from Norway)

This figure illustrates about the use of software (technology) in the recruitment process in future. Many companies (72%) are extremely interested to use software in future. While 28% is only interested to use software in future. Conversely, there is 0% who doesn't want to use it in future.

This trend shows that companies are using software and are strongly willing to use them in future also. This is also an indication for the HR software developers to continue to reproduce the latest, more efficient reliable and user friendly software in future as well. There are many potential users looking forward for the new developments in technology in HR (Human Resource).

Norway

Are you part of an international recruitment network?

1=Yes

2=No

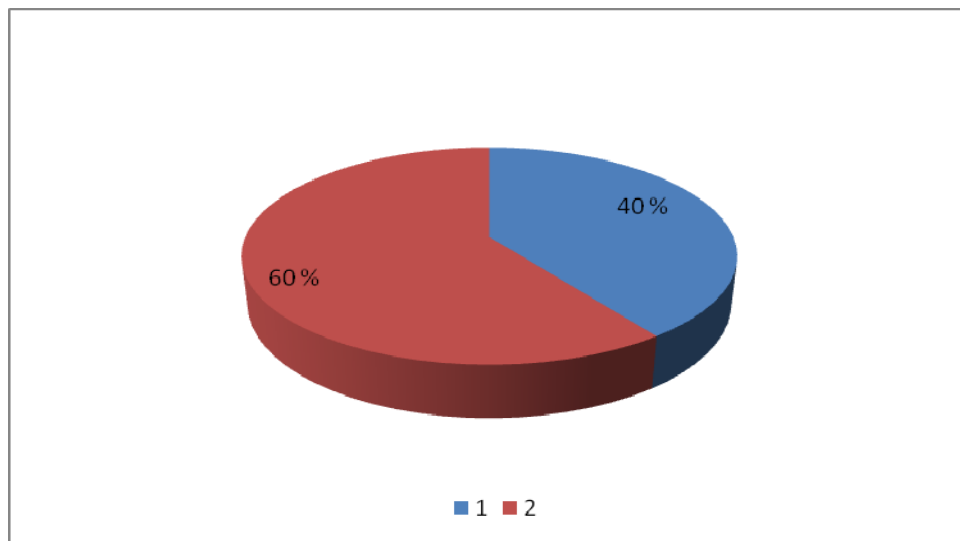


Figure:4 (Questionnaire results: Market trends from Norway)

This figure shows that most companies (60%) work independently. Tough, there is also a high percentage (40%) of the companies who are the part of some bigger or international networks.

The networking depends on the motives and the future goals of the company. If the company wants to expand internationally, they join the bigger network. They usually work independently; however, they have to follow certain rules and regulations to be a part of network. They have the advantage to get much prominent clients because of their international networking.

On the other hand, some companies aim to be the host and would like to create their own networks and grow internationally. They look for their partner companies in different countries. Generally, they takeover smaller companies and give them their own name.

In addition to this, many companies want to stay independently and work at their own and keep their morale high. These companies are SMEs of high caliber and have the significance in the industry.

Norway

How important do you see to be part of an international recruitment network?

1=Very important

2=Quite important

3=Not important at all

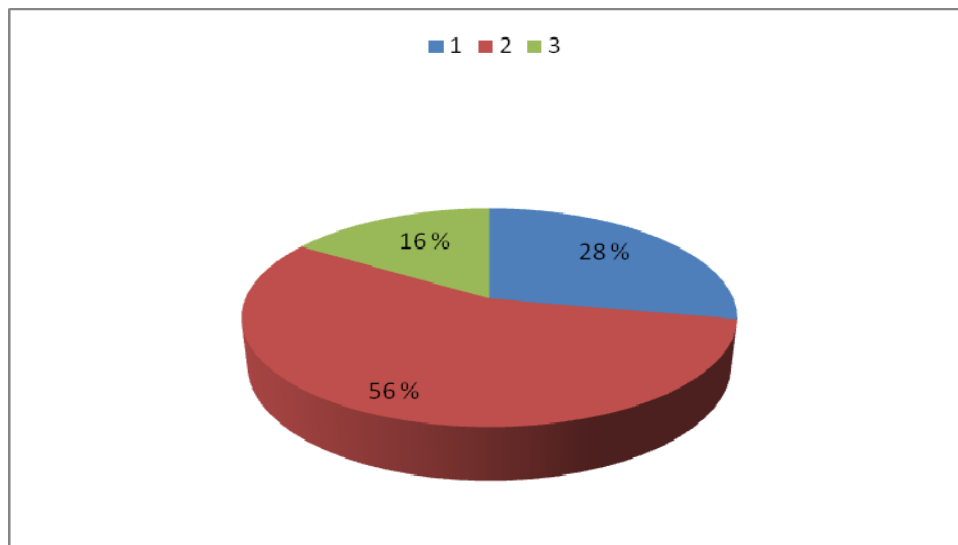


Figure:5 (Questionnaire results: Market trends from Norway)

In this figure the statistics shows that there are about 28% of the companies that gives it high value to be the part of an international recruitment network. Additionally, there about 58% of the companies that believes, it is quite important to be the part of network. Contrary to this, there is a very low percentage (16%) of the companies that think it is not at all important to be a part of international recruitment network.

This trend varies from company to company and its type, goals and aims. Concluding this figure, there are more companies that want to join international networks and very less companies who want to be remain at their own.

Poland

How many employees does your company have?

1=<5

2=5-10

3=>10

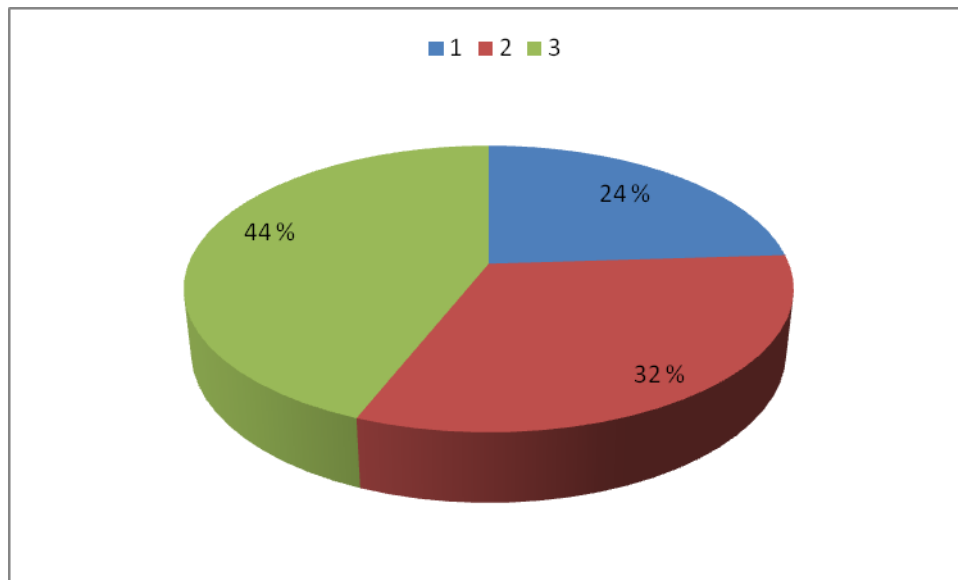


Figure:6 (Questionnaire results: Market trends from Poland)

This figure shows the statistics of Poland. It shows the size of the companies. As we can see from the figure, there about 24% of the companies that have less than 5 employees, 32% of companies have more than 5 employees and 44% have more than 10 employees.

This figure states that Poland has more or less same size of companies in terms of number of employees.

This question is of significance importance because it shows the size of the companies that participated in this research. Furthermore, Poland has a good comparison with Norway; because Norwegian HR industry is developed while Polish HR industry is still developing. The trends are somewhere quiet similar and at some places there are quite unlike.

Poland

Are you using any software tools to enhance efficiency in the recruitment?

1=Yes

2=No

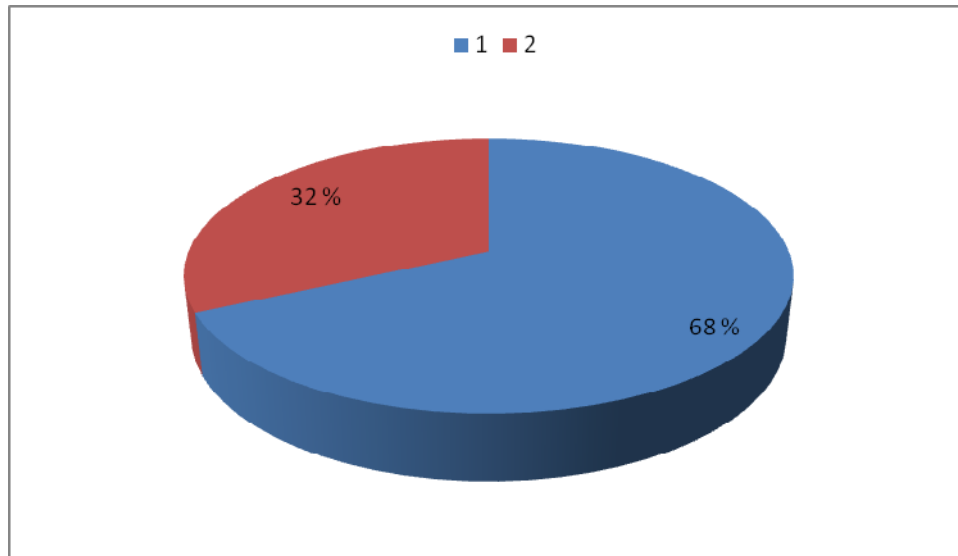


Figure:7 (Questionnaire results: Market trends from Poland)

This figure shows that majority (68%) of the companies are using software tools in the recruitment process. However, there is still a large percentage of companies (32%) who are not using any software tools in the recruitment process meaning, they still doing the things manually or just feeding their data into computer utmost using excel files to facilitate the process.

In contrast, there are a higher percentage of the Norwegian companies who are using software tools in the HR process than Polish companies. It is 24 percent more of the Norwegian companies who are using software tools in recruitment process than Polish companies.

It is also important to know the difference of the Norwegian and Polish recruitment companies who are not using any software tools in their daily processes. There is higher percentage of the Polish companies who are not using any software tools. There are 24 percent of the Polish companies who are not using any software tools in the recruitment process.

This illustrates that Poland has developed much in the technology advancements in the HR processes but still lacking and is in developing process. Whereas, Norwegian companies are now developed and there are a few companies that are not following up the modern ways of doing things.

Poland

Are you interested to use software in the recruitment process in the future?

1=Very interested

2=Interested

3=Could may be consider

4=Not Interested at all

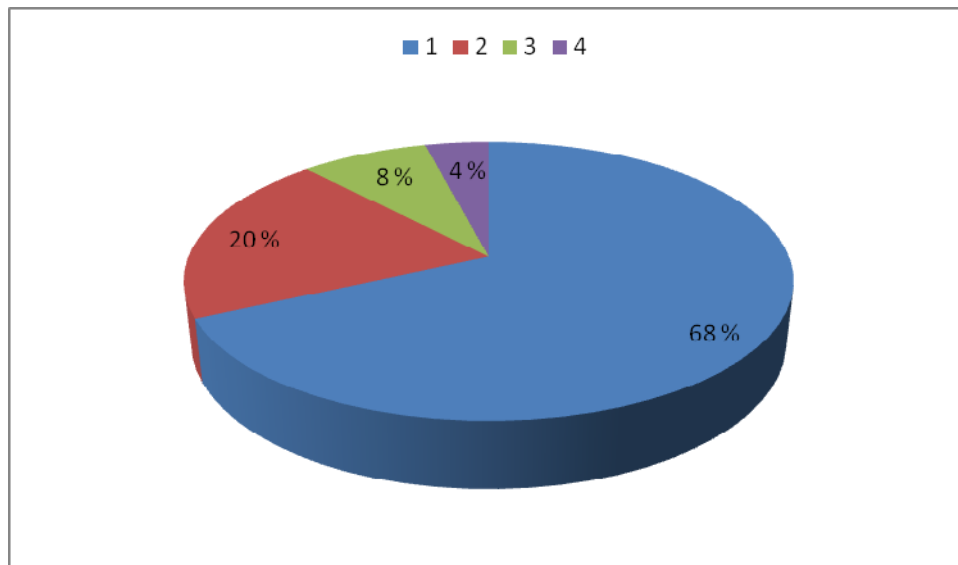


Figure:8 (Questionnaire results: Market trends from Poland)

This figure shows that a large percentage of the companies are **'very interested'** (68%) or **'interested'** (20%) to use the software tools in future as well. However, there is also a percentage that believes that (8%) they still may consider using it in future or either (4%) they are not interested at all to continue using any sort of software in future.

On other hand, Norwegian HR industry had 0% statistics of **'could may be consider'** or **'not interested at all'** category. Though, there is not so much difference in the percentages of **'interested'** and **'very interested'** category. Nonetheless, it shows that Polish HR industry is still developing because of the reason, it still has some percentages that are not using any software and therefore, they don't want to use it in future also. They are not familiar with the efficiency and reliability and ease of modern technologies used in HR.

Poland

Are you a part of an international recruitment network?

1=Yes

2=No

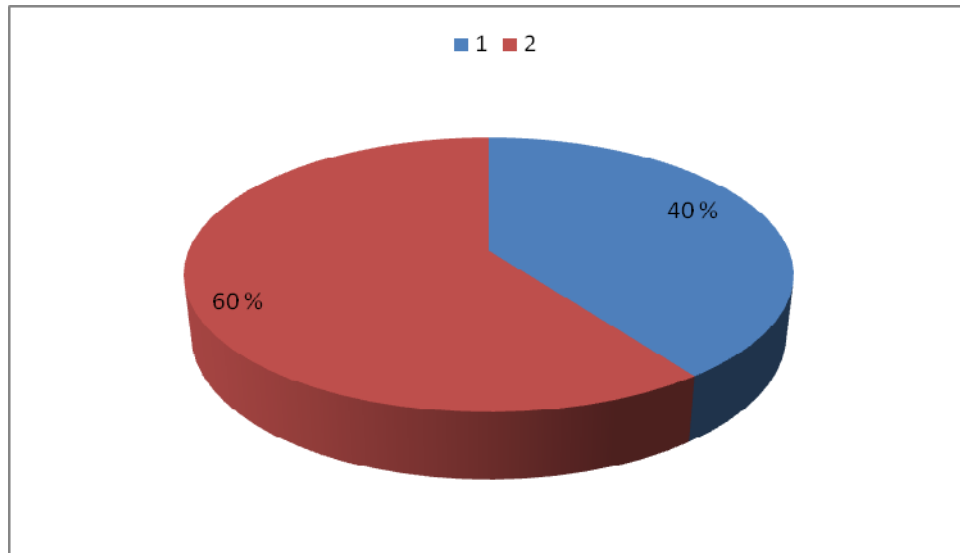


Figure:9 (Questionnaire results: Market trends from Poland)

This figure shows that there are only 40 percent of the companies that are part of international recruitment networks and rest 60 percent work independently.

This statistic is similar to Norwegian market statistic. It means both share the same trend in networking.

Poland

How important do you see to be a part of an International recruitment network?

1=Very Important

2=Quite Important

3=Not Important at all

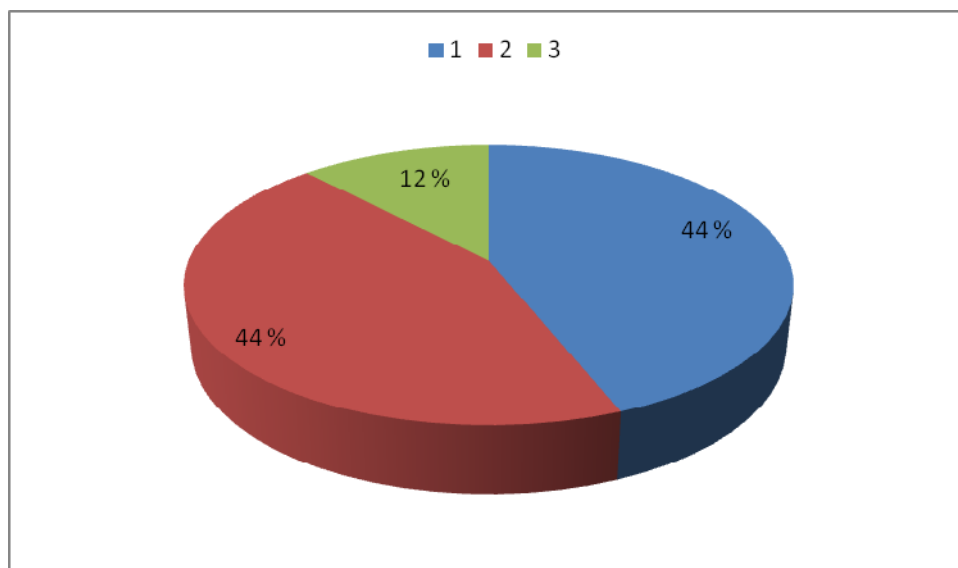


Figure:10 (Questionnaire results: Market trends from Poland)

This figure illustrates that there is 44 percent of the companies think that it is very important to be a part of network and same percentage 44 percent believes that it is quite important to be a part of an international recruitment network. Hence, it is proved that large percentage is interested to be a part of network while only 12 percent think that it is not important at all to be a part of network.

These trends are more or less same in the Polish and Norwegian HR industry. Besides, it is higher percentage of Norwegian market who believes that it is not important at all to be a part of international recruitment network. This trend shows that Polish market wants to grow more internationally by joining the recruitment networks and further develop in HR globe.

## 6. CONCLUSIONS

There are several methods used for the recruitment. Companies use job boards, internet recruitment, recruitment firms or outsource their recruitment department for the hiring of their new candidates. This paper nearly explains all the methods used in the recruitment process. The main objective of this research to prove that there is a high use of technology in the recruitment process.

The use of technology is continuously growing and software developers are focusing to enhance their software according to the HR industry demands and needs. The use of technology in HR process was dated back from the invention of telegraph and telephone to the development of the internet.

Internet is the biggest development that lead up to all the further technological developments. It changed the whole mode of doing things in every walk of life especially in HR globe. People changed their lives according to this invention. Applicants apply jobs through internet and companies find their candidates or vacant position holders' from the pool of talent through job boards, websites and recruitment companies using via internet.

Moreover, there is variety of technological developments but all are related to the computer, software and networking all work with internet. I have tried to cover many of the technologies used in the process in this paper. However, I might have not included all the technologies used in the process.

Furthermore, there are different sources of recruitment discussed in the paper. Internal recruitment and external recruitment both has its own advantages and disadvantages. Internal recruitment is the recruitment within the organization. The highlighted advantages of internal recruitment are that it is less costly than external recruitment. This type of recruitment helps to enhance the job security, confidence and commitment of the candidate towards its organization. However, the situation can be contrary for the ones who have not been promoted; it could lower down their morale. However, sometimes change is good for the organization and external recruitment should be welcomed in the organization.

Similarly, external sources of recruitment have many advantages and disadvantages. The main highlighted one is that it makes a lot of use of technology in its recruitment process. This had been discussed quite in detail in the paper. Therefore, it is also an expensive source of recruitment, but it also welcomes the new talent into the company and nourishes it with fresh ideas. The most useful examples of these recruitments are advertisements, internet, university/college recruitment, recruitment companies and electronic recruitment on World Wide Web. These are all based on technological developments.

The focal point of the research is the use of the technology in recruitment process. Although my research questionnaire covers only two technologies and that are the use of software tools and international recruitment networks. These are the fundamental and high tech tools used in the recruitment process. They wrap up the use of all the related technologies. Their trends and use could give a better vision to assess the rate of use of technology in the recruitment process.

Conclusively points derived from the research questionnaire gives some market trends of using technology in the recruitment process in HR industry from two different countries. The sizes of Polish and Norwegian markets are almost alike but still their trends vary if compared. The use of software tools is rich in both the markets however; there are a large percentage of companies in Poland who are still not using any technology in their recruitment process. Moreover, companies are willing to use technology in their recruitment process in future also but still there are a few companies from Poland who are not interested to use it in future also. It seems that some companies from Poland are unfamiliar with the comforts and ease that technologies provides in this process.

In addition to this, many companies are interested to join the international recruitment network. On the other hand, several companies work independently and they don't want to be a part of any network. Besides this, there is a lower percentage of the companies who are the part of international recruitment network and higher percentage of the companies is not the part of any recruitment network. However, in this criterion, both markets (Polish and Norwegian) share the same trend.

On the contrary, there is a greater percentage of the companies who believes that it is really important to be a part of network. Thus the previous trend that shows that fewer

companies are the part of recruitment networks, it is interesting to note that more companies believe that it is important to be a part of network.

Last but not least, the information and research contained in this paper would help the software developers to know the market trends and would continue to develop more efficient and competent software tools/ technologies used in the recruitment process. Furthermore, the business leaders/investors could also take help from these market trends where they can make investments and make successful and profitable deals out of it. Lastly, the students and the general readers could also be benefitted from this research work.

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## Appendix

### Questionnaire Guide

Question1: Size of the company

Question 2: Yes and No (Gives out the market trends, how many companies are actually using software tools/technology).

Question 3: In-depth question.[Recruitment companies were suppose to give reasons why they are using technology. This question was more important for my company(Talenter International Oy)].

Question 4: Yes and No (Gives out the market trends of the use of technology in the recruitment process).

Question 5: In-depth question.( Gives the future trends of the use of technology in the recruitment process).

## Questionnaire

1. How many employees does your company have? 1= < 5, 2= 5-10, 3= > 10
2. Are you using software tools (e.g. recruitment media, cv database, erp) to enhance efficiency in the recruitment? 1 = Yes, 2= No
3. Are you interested to use software in the recruitment process in the future? 1 = Very interested, 2= Interested, 3 = Could maybe consider, 4= Not interested at all
4. Are you part of an international recruitment network? 1= Yes, 2= No
5. How important do you see to be part of a recruitment international network? 1= Very important, 2= Quite important, 3= Not important at all