# University of Hradec Kralove Faculty of Informatics and Management Department of management

# The impact of technology on human resource management Cause study about Foxconn Company BACHELOR'S THESIS

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**Branch of study: Information Management** 

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# **Acknowledgements**

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#### **Annotation:**

The steady growth and importance of technological innovation and services in the world today particularly in the last years has drastically changed how businesses operate in all areas. From the creation of complex accounting & statistical systems, cloud services to the creation of Human Resource Technologies and associated systems. Many companies and enterprises have consistently incorporated these new technologies to their daily operations and transactions. The companies in the Czech Republic are definitely not left out of this rapid advancement, they also have included and most times developed their systems to simplify complex Operations, increase efficiency, maximise productivity and improve general services in the organisation in order to ensure continual growth in business possibilities, grow profitability and stay ahead of competitors or at least provide healthy completion in the market place and best services to customers.

The usage of Human Resource Technologies in the workplace today is relatively new and is primarily used as a communication tool between different departments in an organisation and the organisations customer base.

The companies used the technologies in their daily business because of their advantages which provide more flexible environment inside the company but in another hand, they could not forget the disadvantages of using them. the disadvantages appear in the companies because of the wrong way of using those technologies or the employees don't have enough knowledge how to use them. The companies try to face those problems by developing these technologies and increase the awareness of employees on how to use them.

The methodology in this thesis is to prepare two questionnaires for one global company has a branch and located in Pardubice city- Czech Republic. In the practical part, it used two questionnaires one of them to human resource department and the second one for the employees in the company.the questionnaires are prepared to analyze and evaluate the impact of human resource management and assess the pros and cons of using those technologies in human resources management. The result of these questionnaires will be analyzed and evaluate how much the impact of using technologies on human resource management.

#### Anotace:

Pravidelný růst a význam technologických inovací a služeb v dnešní době, zejména v posledních letech, drasticky změnil způsob, jakým firmy pracují ve všech svých oblastech. Od vytvoření komplexních účetních a statistických systémů, cloudových služeb ke vzniku technologií lidských zdrojů a přidružených systémů. Mnoho společností a podniků pravidelně začleňuje tyto nové technologie do svých každodenních operací a transakcí. Podniky a společnosti v České republice definitivně nezůstávají pozadu v tomto rapidním pokroku, zahrnuly a ve většině případů i vyvinuly své systémy pro zjednodušení komplexních operací, zvýšení efektivity, maximalizaci produktivity a zlepšení hlavních služeb organizace s cílem zajistit stálý růst obchodních možností, zvýšení ziskovosti a získání náskoku před konkurencí nebo alespoň zajištění zdravého umístění na trhu a poskytování co nejkvalitnějších služeb klientům.

Využití technologií lidských zdrojů na pracovišti je v dnešní době relativně nové a primárně využíváno jako komunikační nástroj mezi různými odděleními společnosti a klientskou základnou společnosti.

Společnosti využívají technologie v každodenním podnikání kvůli k jejich výhodám, které poskytují flexibilnější prostředí uvnitř firmy, ale zároveň by neměly zapomínat na nevýhody jejich používání. Nevýhody se objevují především při nesprávném používání těchto technologií, nebo jestliže zaměstnanci nemají dostatečné znalosti k jejich obsluze. Společnosti se snaží čelit nevýhodám prostřednictvím vývoje těchto technologií a zvýšení povědomí zaměstnanců o jejich užívání.

Metodikou této bakalářské práce je příprava dvou dotazníků pro jednu globální společnost se sídlem v Pardubicích v České republice. V praktické části jsou použity a zpracovány dva dotazníky – jeden pro oddělení lidských zdrojů a druhý pro zaměstnance společnosti. Dotazníky jsou připraveny tak, aby analyzovaly a vyhodnotily dopad managementu lidských zdrojů a posoudily výhody a nevýhody používání těchto technologií v managementu lidských zdrojů. Výsledky dotazníků zanalyzují a vyhodnotí jak velký dopad má užití technologií na management lidských zdrojů.

#### 1. Introduction

Business today is in a state of rapid and aggressive adaptation to the age of information and the internet, it has moved from the traditional ways of operation. The business focus in the 21st century and the modern world has expanded beyond just delivering a product or service, it entails delivery of the demanded products or services in top notch condition, as quickly as possible and more importantly providing the best overall experience for customers during this whole process. Business society today is extremely focused on anticipating customer needs, innovating, creating, and finally delivering consumer needs and wants in as little time as possible while also making it as stress free and very comfortable for the consumer and none of this is possible in the absence of human capital management otherwise known as human resource management. Technology has continuously changed the business world and how it operates. In the information era, the arrival of computers and the Internet has significantly increased and overhauled the way businesses operate. Many businesses find it impossible to even function without the use of computer technology. This effect is evident in all areas of a business, including human resource management where technology has been and continues to be hugely influential and significant on human resource methods.

The purpose of this thesis is to analyse the impact of human resource management in today's corporate environment, and the impact technology in the 21<sup>st</sup> century has had on it.

# 2. Objectives and Methodology

#### 2.1. Objective:

The main objective of this thesis is to examine the role of technology in Human resource management, the relationship between technology and human resource management, Human resource technology, the evolution of Human resource management and technology, and the future of Human resource management and its technologies.

The thesis will focus on Human Resource and how companies integrate new technologies into the management of human capital.

The second part of the thesis will focus on the projected future of HRM, the advantages and possible disadvantages of technology in HR and how Human resource technology will constantly affect HRM with the aim to improve HRM practices and methods in the coming years.

From the objectives this thesis paper will answer the following questions (RQ):

Q1: What the effect of human resource technology in unemployment rate?

Q2: Do employees get familiar with introduce technology in human resource?

Q3: How to evaluate the pros and cons of introduction the technology?

Q4: Does the technology help the company to reach its goals?

#### 2.2. Methods

The method in this research will be used to achieve the objectives of this thesis paper

The method will be creating two questionnaires for a global company. The first questionnaire will be sent to the human resource department in the company to analyse and evaluate the effect of technology in the unemployment rate, the current state of human resource management and assess the advantages and disadvantages of using those technologies in human resource department. The second questionnaire will be responded by employees in the global company to analyse and evaluate the employees' familiarity with the development of those technologies in the company and if it helps them in their daily tasks.

From the feedback and the results, it can help to advance and improve using technology on human resource department, improve the skills of employees and help them to be more familiar with using those technologies and help the company to reach its goals it.

#### 3. Literature Review

# 3.1. Human Resource Management (HRM):

#### 3.1.1. Definition

Human resource management (HRM) is the implementation of recruiting, hiring, arrangement and managing processes of all employees in any organization. Human resource management makes employees more valuable to the organization they work in. Human Resource Management is components of characters such as leading in a job analysis, Hiring the right people the qualified job, taking in considerations the orientation, the training, managing salary and bonus, providing benefits and motives, evaluating employees performance, resolving argues, and finally bridge of communication with all employees at all levels of the organization (University of Nebraska, 2018).

#### 3.1.2. The history of human resource management

Human resource management (HRM): it can be called human capital management or personnel management: is made up of all the activities undertaken by any business, organization, or otherwise to ensure the effective utilization of employees towards achieving the mission and vision of any individual, group, organizational or government goals.

In the race of innovation, the army was the first in this field. The nations and countries have made strong armies to protect their borders and their property and it was important to providing security and safety to the citizen of these countries. The existence of this army should have highly motivated, courageous leaders, and has the goals seek to achieve them .the army should be had resources for innovation investment. It was the first successful experience of human resources in the organization of old armies and the distribution of tasks and recruitment without any knowledge about HRM (HRM, 2016).

HRM has grown responsive to its competitive business environment. In the 1970s because of deregulation, globalization and rapid technological change the American's companies and organizations began suffers. And Because of this suffering, companies and organizations have decided to enhance their effectiveness by participating in strategic planning and making their environment and capabilities appropriate for that.

An organization's HRM function focuses on the people (employees). It made up of activities that help the company or organization to deal with its employees during the employment process, including pre-hire (planning practices), staffing, and post-hire. The company must decide what kind of job opportunities are available and will open in the future and provide the

necessary information and qualifications wanted for these jobs. During the hiring process the organization will selects its new employees. Selection practices include their qualifications, recruiting applicants, ultimately, and assessing selecting those who are the most qualified (VinayKumar S, 2015).

#### 3.1.3 Human resources management practices:

Every company in our world seeks to increase its production and usually faces all the challenges and problems associated with it. These companies use many strategies, practices, and activities to make it successful. Examples of such practices and activities are:

#### Analysis of design work:

This involves the creation of a strategy, plan, and a system of action or object by the company to achieve maximum productivity from the particular project undertaken by the company.

# **Planning:**

Planning as the name suggests involves developing a well laid out and strategic plan to use the resources owned or available to the company to reach its goals and increase its production and planning is important for any company because it helps to optimize the use of human resources as well as access to talented staff and open to creative and beneficial ideas from all staff.

#### **Recruiting:**

This is the process of research by the company to find and choose employees for vacant positions including the process job analysis for the job, and advertising and publicity in order to attract employees to that job. The applicants are examined, the selection of the most efficient and suitable for that job.

#### **Selections:**

After recruitment comes to the selection process here the best and most suitable options are chosen.

#### **Training and development:**

Companies and organizations provide training opportunities in specific areas for their employees aimed at increasing performance and providing employees with skills, abilities, and knowledge to assist them in their work.

#### **Compensation:**

The employees receive the compensation for his service or damage or compensation for loss, suffering, retirement or leaving for work, which shall be outside the amount of salary.

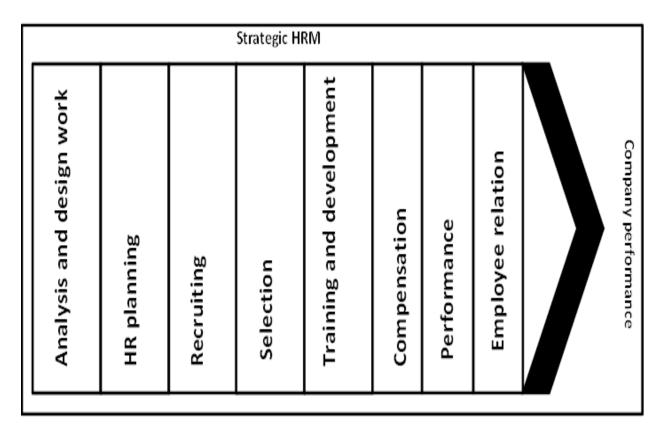
# **Performance management:**

Is to provide a full work environment to make the employees take out their best abilities and skills at work and it helps the company in dealing with all its employees, assess their performance and give them opportunities to increase its performance and productivity.

#### **Employee relations:**

Are relations that link employees to each other and with their employers. The company seeks to manage the employee's relations because of its importance in increasing their effectiveness and impact in the performance of the company positively or negatively (Sherman, 2018).

Figure 1: Strategic Human Resources Management



Source: (Slideplayer)

# 3.2. Technology

Nowadays people can't imagine their life without technology then what is technology. The word technology comes from two Greek words. (Techne) we can translate it into skill, art, craft, way, manner, or means by which a thing is gained. (Logos) the word we can translate it as the formulation by which inward thought saying or an expression is expressed (Technology, 2015).

Technology has been used since ancient times to solve problems and needs.

People have used their knowledge, information, and data to discover the technology and developed it over time to suit their needs in every time and technology has become very important in human life for its benefits and has entered many technologies in all factors of life for examples: education, social, economic, cultural, political, legal, military, etc. (companyconnecting, 2017).

The technology consists of three components:

- Inputs: This is the first stage and contains all the elements and needs to produce the product and process.
- Processes: The second stage is the method of processing, input, and conversion to the product.
- Output: is the third and final stage is to get the result that is ready for use and work.

The Invented computer, Internet and the forms of communications are the most important technology invented in the modern time for its great contribution in the preservation, dissemination and application of information and has become a way to obtain it's very simply and quickly and its role in the development of all factors of life and facilitate the communication make the world looks like small village.

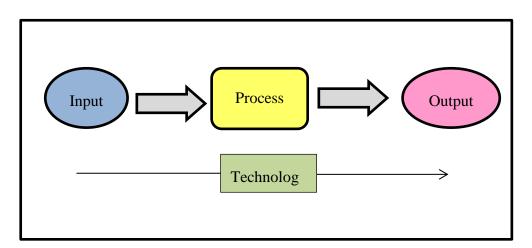
Technology has radically changed the lives of people. Making their life more comfortable, luxurious and helps them maintain time. The world now depends entirely on technology in its lifetime, and as far as advantages of technology are, it has disadvantages as well if they do not use in the right way. The world seeks to increase technology development to make the world of tomorrow better than todays (businessdictionary, 2018).

# 3.2.1. Definition of technology

The technology has several definitions according to its type and use:

- 1. The word technology comes from two Greek words, transliterated (techne and logos). The terms of (Techne) means art, skill, craft, or the way, manner, or means by which a thing is gained. The terms of (Logos) mean word, the utterance by which interior ideas are expressed, a saying or an expression. In summary, the terminology of technology means words or discussion about the way things are gained (Funk, 1999).
- 2. Technology: is a set of techniques, methods, skills, and processes contained in the production of goods, services or in the achievement of objectives for example, a scientific investigation. It also defined as the combinations of techniques, processes and their similarity or it can be enclosed in machines to be in operation without characterizes knowledge.
- 3. Technology: is the ultimate product of the process of processing input for having a usable product. They have invented it to help them in all aspects of their life and to make their life more comfortable and luxury. (companyconnecting, 2017)

Figure 2: Process Of human resources by technology



Source: author

# 3.2.2. History of technology

The history of technology can be explained as a history of tools and techniques inventions but is also connected with changes and growth of population as well as societies.

In history and even nowadays, society doesn't always see new technologies as suitable or requisite. Innovations change and remake relationships between humans, but also between environment and society (Mikael Hard, Andrew Jamison). Every age has its own way of technologies and their improvement. Palaeolithic population had only limited tools made from stones and they started to use fire. Neolithic people focused on technology for their primeval need – food and that's why there was the invention of more advanced stone and later metal tools and weapons. In valleys near great rivers had developed agriculture. Which led to rapid population growth and so- called Neolithic technological revolution (aka Bronze age).

Ancient civilizations were starting point that leads from barbarism to start of first society with the development of the written word. These growing civilizations made many inventions in the field of technology and engineering which improved ways of living and how effectively their population reign. Mesopotamians are widely known for the invention of the wheel. In ancient Egypt were greatly improved: mathematics, astronomy, medicine, architecture and machines that helped these areas of science. Chinese finest products, that helped to advance population, were paper, compass or gunpowder. Greek civilization was focused on mechanical technology – like using wind and other elements which lead to the invention of watermill etc. Thanks to Archimedes and his law were constructed water lifting pumps which helped to improve agriculture. Greek culture also made great progress in creating musical instruments. In astronomical science was a populate Antikythera mechanism – kind of analogous computer helping with predicting astronomical positions used for making calendars or tracking cycle of Olympic games.

Roman civilization was more focused on agriculture and social science. They first made a law that provided people chance to own their piece of land. The Building, roads, military ,and civil engineering. All around the ancient city of Rome were made canalizations which helped to improve hygiene. Rome architects were first one to build monumental arches, aqueducts, public baths, etc. (Matthias Heymann, 2006).

#### Medieval era

Islamic world had many inventions during the Islamic golden age (9th -13th century). They combined knowledge and technologies from older civilizations with their own improvements.

And they had other advantages such as contact with Far East (import of fine materials – porcelain, steel, silk, paper), near contact with Greece (ideas of Aristotle's) and Islamic religion, unlike at same time Catholicism, didn't stop or slow down science and development. Big inventions were made in medicine (disinfection, mental hospital) or architecture (tinglazing, lusterware).

On the other side in Europe, it was a mixture of innovation and tradition. Because innovations were mostly declined by the church. But still, there were some useful inventions like spectacles, mechanical clocks. More freedom started with the arrival of Renaissance, which patronized technological advances. From this time, we know – the printing press, patent law and linear perspective in drawing. And people in Europe started to be interested in exploring new continents (Christopher Columbus, Vasco da Gama).

Industrial Revolution is also known as British Industrial revolution. Fast progress and development in metallurgy, mining, textile machinery and transport were thanks to the invention of a steam engine (made by Watt and Boulton). The revolution was led by non-expensive energy from coal that mostly came from British plentiful resources. Coal allowed an industry to move further because it wasn't restricted by water or wind resources. The high-pressure steam engine started railway and steamboat transportation which was faster and more comfortable than previous ones.

Second industrial revolution started at the end of 19th century and lasted till the start of World War I. It was period of fast development in the area of electrical, chemical, petroleum and steel technology. At the same time were invented both the telegraph and the telephone. Bicycles were mass produced, incandescent light bulbs found their places over cities and people started to work on shifts in factories.

The 20th century brought rapid development accompanied by the inclusion of scientific method to broad teaching and supporting research in all fields. Transportation was facilitated to everyone by mass production of automobiles. Communication became easier and connected continents by radios, the telephone (later mobile phones) and computers with the invention of the internet. People stopped die early cause of ordinary cold thanks to vaccination. At the end of 20<sup>th</sup>- century science opened new hope for pairs with conception problems. The 21st century or our current time is described by gene therapy, nanotechnology, nuclear technology, biotechnology, alternative fuels, wireless power...All of this allows us to connect with people all around the world, but it can also disconnect us from the reality around us. (Williams, 1960)

#### 3.2.3. Importance of technology:

The importance of technology in the life is because of its benefits in all aspects of life. Helps human to devise the best means to deal with various problems as well as the ability to make the right decisions and provided them with many types of machinery and advanced equipment to help them to accomplish their tasks and ease their needs. The increase of the production of goods; provide services more quality with less cost, time and effort and helps to shorten and narrow the distances between people mainly by creating the best ways, forms and means of communication and connection between people (Importance of technology, 2015).

Despite the importance and advantages of technology in human life we cannot forget the disadvantages. The impact of technology negatively or positively depends mainly on how it is used by the human being, we must work to have the most of their positive aspects and avoid their negative effects. For example:

Nuclear technology: It was used in wars, military targets, killing innocent people and pollutes the environment but in other hand it is used to achieve a quantum leap in the fields of energy, medicine and others (UKEssays, 2015)

# 3.2.4. Components of Technology:

# The technology consists of three components:

#### **Inputs:**

- Inputs: is the first stage and contains all the element, data, information, codes, materials and needs to produce the product and process it. (Author)
- Inputs are recourses such as people, raw, materials, energy, information or finance that are put into a system (such as an economy, manufacturing plant, computer system) to obtain the desired output.

#### **Processing:**

- Processing is the second stage of the components. In this stage is processed and modified input and converted into a product and process of the input can be by creating, adding updating, deleting and reading. (Author)
- Processing: Movement of data or material towards a known goal or end results, by passing it through a series of stages or sequence of actions.

#### **Output:**

- Outputs are the third and the final stage to get the result after being processed and modified and are ready to use and work by. (Author)
- Output: is the amount of energy, work goods, or services produced by a machine, factory, company or an individual in the period (businessdictionary, 2018).

#### 3.2.5. Sectors affecting technology:

Every day, humans invent and develop more devices, equipment's, systems, programs and technology to be used in different areas of life and help in performance development, to increase productivity with less time and cost as well as provide better service for consumers. For examples of these sectors: (Iman Kataf, Laila, 2012)

#### **Educational Sector:**

This involves using the technology in education to facilitate learning and improve performance by providing the best ways to display and obtain information. This technology is used in schools, universities, scientific research centers and others. And examples of these technologies: computers, the Internet, Software, and Data show (Forest, 2018).

#### **Health Sector:**

A health technology is the application of organized knowledge and skills in the form of vaccines, procedures, medicines, devices, and systems developed to solve a health problem and improve quality of lives. Human use these technologies in hospitals, clinics and health centres (organization, 2017).

#### **Industrial Sector:**

The industrial sector is one of the most important sectors in any country because of its importance to developing and prosperity the economy. Since the advent of the industrial revolution in the 18th century, the world has witnessed great economic developments and changes. Technology has played a major role in these developments and changes. Technology has been used in the construction of factories, producing, transporting, storing, selling the products and manufacturing the modern equipment (Kelley, 2009).

#### 3.2.6. Advantages and disadvantages of technology

Technology is very important part of every human life. It helps us and sometimes is even necessary to our work life as well as social life. Brings us many benefits that make ordinary duties easier. But like everything it has two sides we can call them advantages and disadvantages.

#### **Advantages:**

Evolution of technology served the population in many fields, such as medicine that helps to treat and cure many problems which few decades before were fatal. Or in economics development made things go faster, save time and at same time money. In the research field, internet connection simplified work and cooperation between researchers from different countries. Technology made industry to increase their productivity all over the world. There are some of the important advantages:

- Social connection: We live in the age where we can relate to someone else from another
  continent through one simple click in our computer or smart devices. Social media bring
  information from all around the world inaccurate time and we know the latest
  improvement as soon as it's made.
- 2. **Saves time:** Automation of things around us makes our life easier for example washing machine, dishwasher or hairdryer, saves our time and energy. Special application for almost everything can help with an easy task like how to cook something to track our health or when we have the appointment.
- 3. **Increasing production:** In industry big machines do most of the work and are far more effective and quicker than human power. And their accuracy is almost 100%.
- 4. **Improving business services:** Thanks to customer related operations companies can improve their service and adapt it according to customer's needs. Single phone call/email/or filling the online formula can help the customer to get his device fixed or get a new one.
- 5. **Safer storage:** In a previous era it was hard to have all the document and money safe. Now in a time when everything is online we can store everything online, on clouds or flash disk and our money are relatively safe in our bank account.
- 6. **Accelerating:** Technology boosts production and development in all fields of human personal and works life. It makes space for new innovations and we can tell that technology practically creates another technology.

- 7. **Easier and more interactive/interesting learning:** Technology infeasibility of people, especially students to discover knowledge from whole world and history. It makes students to use less paper book and to search for information by themselves on the internet. And thanks to interactive learning some boring class can change into interesting one which makes students to like the subject and learn easier.
- 8. **Simplify work for teachers:** With technical devices and special applications, the teacher makes students be more attentive in class and lessen the gap between student and teacher.
- 9. **Improves capability of people:** Because nowadays almost everything is computer controlled, it's important to be able to work with those gadgets. And according to how much technology goes forward we can tell everyone should prepare for next more automated generation.
- 10. **Helps people with disabilities:** All people with disability (like hearing or other physical problem) can be included in the normal population, study/work and life like others with technological devices. For example, they can travel by themselves with mechanical wheelchairs and use smart wearable to navigate them.
- 11. **Made life easier in all kind of situations:** Like said above technology makes our life more comfortable and opens new opportunities for us. For example, traveling by plane to another part of the earth in less of day, where our ancestors travelled few months.
- 12. **Gives entertainment:** We can entertain ourselves through the very many websites and social media (Facebook, Instagram, YouTube, etc.) as well as we can have fun with our friends and family by sharing our photos, stories or videos (Mortada, 2016).

#### **Disadvantages**

As all things in our life, even technology has its disadvantages which are mostly related to environmental pollution, health or social problems. There are some important disadvantages

- 1. **Nothing is 100% safe:** Is one of biggest disadvantages of modern technology, because this way anyone can be robbed of their money by some hacker or even worse, a person's identity can be stolen through targeted cyber-attacks.
- 2. Connection problems: Internet connection or mobile signal is not always available without interruptions' and more often than not, we must admit it makes us uncomfortable and sometimes makes our plans go another way or be cancelled entirely due to lack of information.
- 3. **Affecting social life:** Virtual reality often takes people from the reality that happens around them and they stop to see each other face to face. Sometimes because of social

- media, we can get into many misunderstanding with our family; friends or we can lose them.
- 4. **A danger of distraction:** It can distract people, especially student from paying attention during class and stray to another site like to go to social media. But it can also affect them during normal activities like walking in the street, which can be fatal in some cases.
- 5. **Technology is expensive:** The truth is that technology is in many times expensive and they are not affordable for all people in all countries (developing countries don't have internet connection in every part of the country), only people from upper classes are able to buy many of technological stuff. This makes a social gap between people.
- 6. **Affecting nature:** This is one of biggest disadvantages of technology for people because it pollutes water, soil, and air in big masses. Many of wild nature were destroyed because of expanding technology and lot of animals became and still becoming more of them in a list of endangered species (Nick Ismail, 2015).

# 3.3. Human Resource Information System (HRIS)

An HRIS is standing for a human resource information system and also its stand for human resource management system (HRMS), it is initially an intersection between human resources and information technology by Human resource software. This allows the human resource's activities' and processes to occur electronically.

In other words, an HRIS is may be expressed as a way, via software, for big and small businesses to take care of several activities, with taking in account those related with human resources, accounting, management, and payroll.

Typically covered as a database, hundreds of firms sell some form of HRIS and every HRIS has a particular capability.

Thanks to HRIS the firm can plan its Human resource's costs more effectively, as well as to conduct them and control them without a need to allocate too many resources toward them (Amaeshi Uzoma Francis, 2013).

Benefit
Management

Demographics
&
Compensation

Employee
Portal

Time &
Attendance

Performance
Management

Tracking

Figure 3: Human resources information system

Source: (Sampurna Majumder, 2016)

#### 3.3.1. Electronic-Human Resource (e-HRT)

There are data and the human resources (HR) department has always been the custodian of employee data. The type of data collected, where the data are stored, how the data are used, and the type of system used for these purposes has changed over time, but the need to collect information relating to hiring, promoting and firing employees has not changed. HR technology is increasingly being used by small, medium, and large employers to meet the needs of its stakeholders. What sets high-performing organizations apart from others is how they use technology to deliver HR services.

This chapter is going to explore the relationship of information technology (IT) to HR and how HR leverages technology to manage a firm's human resource (Marco Maatman, 2006)

#### 3.3.2. Human Resources Management and Technology

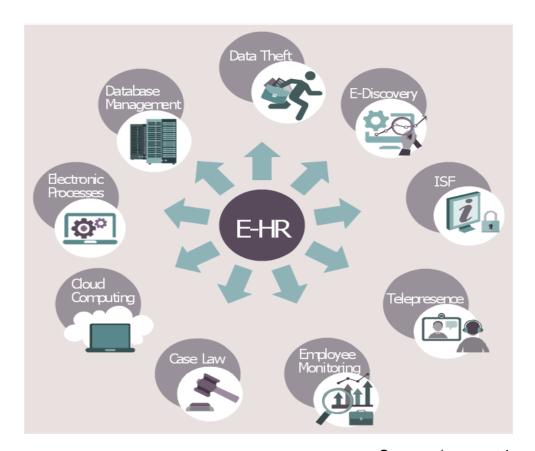
People who have been hired for any job position at any point in time know that it is necessary to complete forms so as to become an official employee. Nowadays it is completely normal for an organization to ask specific details mostly personal information usually considered as private or somewhat private of someone they wish to hire. These details include first name, last name, address, emergency contacts, banking information, marital status, and of course Social Insurance Number. After this information is collected on a particular individual, it is kept in custody of the human resource department. One major change in this process is how this data is collected, how it is kept, where it is kept, and how it is used. However, the importance of collecting such information relating to the hiring process has always remained constant, regardless of technological advances in human resources. The development of new technologies has definitely not been ignored in 21st-century businesses and HR technology is increasingly being used by small, medium, and large employers to meet the needs of its stakeholders.

The difference between top businesses and small differences in how they use technology to meet consumer needs, either by selling a service or a product and how efficiently they use their human resource services.

This chapter will show the relationship between information technology (IT) and Human resources and how HR technologies are used by these firms to get the best out of their employees. This chapter will focus on the growth and steady advancement of HR technology, the birth HRIS systems, the different parts that work together to make the system, and how organizations determine which of the HRIS systems best fits with their workforce and

customer base. Furthermore, this chapter will focus on electronic HR (e-HR), what it is and the way organization makes use of Web-based technologies such as cloud computing to improve service delivery to customers (V. Thamarai Selvan, 2015).

**Figure 4: Electronic Human Resources** 



Source: (conceptdraw.com)

# 3.3.3. Impact of technology in HR practices:

Technology has been used in the management of human resources in a way that makes it easy for them to collect and save their employees' data and facilitate communication with them. Technology must be used correctly to obtain positive results and help the company to reach its goals. Using them in a wrong way will generate negative results that affect the performance of the company, its employees and the services it provides.

# **Recruiting Transformed**

Before entering the technology in the management of human resources was the process of recruitment takes a lot of procedures and time to complete them, including interviews, receives C.Vs scheduling, selection of new employees and with All these operations some documents may be damaged if they are not stored correctly but After the entry of technology,

the recruitment process became easier. It is possible to use the internet to apply for work opportunities, send C.Vs, make interviews, obtain more information, get more work opportunities and more easy to store.

#### **Ease of Communication**

The development in the field of communication helped the human resources management in the quick and easy communication with all the company's staff at any time using e-mail, social media and other to send appointments, documents, plans, projects and others to discuss and make decisions on them. Thus saved the effort and time should not the employees' Presence to the company to obtain it.

#### **Data Analysis**

The invention of the computer helped human resources in the collection and analysis of the performance of employees and whether their tasks were completed correctly and on time. Then do detailed reports about them to give the assessments about them to the company. This process in the past before the computer took a lot of time and effort to work.

#### **Too Much Data**

Human resources rely on the collection of information, data, and their analysis but some employees feel uncomfortable to this way of collecting information and data because they feel that it exceeds their privacy and disturb them by using technology will be the best solution to solve this problem by using a full system of control, surveillance cameras....... etc. but sometimes the amount of information and data collected too large So that it is difficult to manage and control them for that they should know how and when collecting and control them.

#### **Security Practices**

The insurance of information and data is very important to the success of any company. The information and data of the company may be leaked by employees who are responsible for accessing and controlling that information and data by using electronic copies for that the company must pay attention and control people who can access and control that information and data.

In the past, lockers were used to store information and data, but today technology has been used in this.

#### **Training**

When the company receives new employees the company seeks to train and provide the necessary information to them by professional trainers in human resources. The trainers use the technology to communicate directly with the new employees, train them to get familiar with the systems with proper orientation (Sherman, 2018)

# Advantages and disadvantages of technology in HRM:

With different reasons and objectives of using technology in each company, like some companies use it to raise performance and facilitate transactions or to improve communication with their employees and provide good services for the customers. Despite the importance and advantages of technology in the management of human resources but we cannot forget the disadvantages of it. Effect of this technology depends on the way it used by the company and the surrounding the environments (Fatima twahiri, 2015).

#### Advantages of technology in HRM:

- The technology used by a company to train the new employees, travel, transport the goods, communicate with employees, customers, and other branches.
- The technology used to keep in constant touch during and after working hours using emails, social media and others (Paul Goodman, 2016).
- Technology helped companies to organize and save time by helping do many tasks in same the time (Muhammed Swalih, 2017).
- Provide long-term saving for the documents, data, and information of the company and its staff with easy access to them when they needed.
- It has Strategic Role in the company and helps in the development of plans, programs, projects, strategies and also in the distribution of tasks in new the sections.
- Help to produce products and services with high boosted quality.
- Helps in the evaluation and Standardization of the company (ZUZANA KALMÁROVÁ, 2012)

#### Disadvantages of technology in HRM:

 Using technology in human resources management, may reducing the employment opportunities that is available to employees and increasing the unemployment rate in society.

- Sometimes Lack of knowledge about how using these technologies may cause negative effects reflected in the performance of employees. And leads to make employees leave their jobs and unwilling to apply for some of these jobs (Heba Soffar, 2015).
- Using technology in the company so much can provide a tedious business environment for the employees.
- Using this technology in a company can create a boring working environment for employees
- The use of technology may lead to lack of privacy.
- Difficulty in the protection of information and data because of hacking and viruses which may damage information and causes a lot of problems for the company (Muhammed Swalih, 2017).
- The use of technology may cause health problems for employees (ZUZANA KALMÁROVÁ, 2012).

# 3.3.4. Evolution of Human Resources Technology

Human Resource technology can be described as any technology that is used to attract, employ or engage, terminate or maintain human capital.

Technology like this can be used in a variety of human resource information systems (HRIS) by any individual or organization. Technology has simplified how information and data are sought and collected especially with employees within the organization and this has shown that companies who use technology in their HR activities have a strong advantage over those who use more traditional HR methods.

However this technology is hard to acquire as well as maintain technology, and all companies have customer bases that differ in size but all companies have one thing in common, HR information and HR needs. The information needs of a small or medium-sized company are quite contrasting in comparison to the needs of large companies. A small or medium-sized company can comfortably use Microsoft Word or Microsoft Excel file to store employee information and customer data but this same process is not enough for a larger company. This can pose a problem for these larger companies but thanks to HRIS systems, larger companies do not need to go through so much trouble. The stages below show the development phases of development of HRM systems and technologies.

#### These phases can be put into four stages of development:

1. Traditional Paper systems.

- 2. Early Personal computer (PC).
- 3. Electronic databases.
- 4. Web-based technology.

# 3.3.4.1. Stages in the Evolution of HR Technology

#### **Stage 1: Traditional Paper Systems**

Every system at its initial inception began traditionally paper-based. HR systems are no different. This was a system where employee details were put on paper stored in a file, and placed on a shelf that had all other personnel files kept there as well and then filed with specified company parameters. Highlights and important information were included as required then added to the original files. After this, the collected information were put on centralized computer PCs, and saved by the HR department. The departmental heads of HR during this period sent workers to HR file room to get whatever information file they needed. This system operated independently and had no integration whatsoever with any other functions of the company.

#### **Stage 2: Early Personal Computer (PC)**

In this stage, there was a migration of the information that was kept in the paper systems to PCs and local area network (LAN) systems and their new databases.

Human Resources Management in Perspective meaning basic employee information. Advances in database technology included payroll and some very basic versions of employee tracking. The HR data were typically stored on client-server—a network architecture in which each computer on the network is either a client or a server.

#### **Stage 3: Electronic databases**

In this stage, HR kept on being the main proprietor of information. This stage started with the development of social database innovation. Social database implies that a bit of information can be put away in more than One File, every one containing diverse kinds of information. The distinctive records can be connected with the goal that data from the different documents can be utilized together. A social database enables databases to be set up in a few distinct areas and the data connection. This technology provided organizations with the ability to create and develop more complex reports that integrated several data elements.

#### **Stage 4: Web-Based Technologies**

Web-Based Technology in the present time is the leader, the most effective, and current stage in HIRS today. Numerous organizations have begun to grasp HR technology. The advantages of such automation are now generally known. The most commonly known web-based technology is cloud computing. Employees and customers alike are encouraged by companies to use cloud-based systems to store whatever information they wish to regardless of the size and without fear losing personal information to hackers. The company can from the data collected, with the permission of the customer know what services the customer prefers, what is likely to motivate employees more in a workspace and what the future of the business market will look like based on analysis of collected data and market forecast (Julie Bulmash, 2008).

Stages of evolution
HR technology

Electronic databases

Figure 5: Stages of evolution human rsources technology

Source: author

#### 4. Research Methodology

Human Resource Management today is in a state of rapid and aggressive adaptation to the age of information and technological advancement, it has moved from the traditional ways of operation. Human capital management otherwise known as human resource management is the most important part of any business, without Human capital management there will be no means of communicating effectively with a company's consumer base and its employee base. The importance HR, driven by enormous amounts of data collected daily from customers worldwide has brought about a necessity for different technological advances and companies are starting to integrate these systems into their daily operations in order to effectively manage and meticulously analyze collected data in order to anticipate consumer behavior. This has proven to be more of an asset and less of a liability, with benefits that range from easy communication, more secure data basses for digital data and consumer confidentiality, and even recruiting practices. The purpose of this thesis is to analyze the impact of technology on human resource management and how it affects the corporate environment today. It focuses mainly & only on HR & technology.

A research methodology is designed to determine the impact of technology on human resource in Foxconn Company.

The first method that has been used in this study is to prepare the questionnaire on the impact of technology in human resource then send it to the human resources department in Foxconn company to vote for it. And the responses to the questionnaire will show how using technologies in the department help them to reach their goals, manage their daily duties, and assess the advantages and the disadvantages of using it.

The second method is to prepare the questionnaire on the impact of technology in human resources and to send it to the Foxconn Company which employees can reach and vote for it. The responses to the questionnaire will show how those technologies help them in their daily duties and if they are familiar with development in the technologies.

And responses are analyzed with statistical methods to evaluate the impact of technology in human resources department and the employees in the company.

#### **Foxconn**

One of major industry of multinational electronics contract producing company is Foxconn Technology Group. The full name is Hon Hai Precision Industry Co., Ltd., which has a trading name Foxconn technology group.

Foxconn has the headquartered in Tucheng, New Taipei, Taiwan. Foxconn is the world's leading in the largest contract electrics manufacture and the fourth largest information technology company by revenue.

Foxconn is leading in the largest private company in China. Terry Gou is the owner and chairman.

Foxconn manufactures which produces electronics products for main American, Canadian, Chinese, Finnish, and Japanese firms.

All note products manufactured by Foxconn such as the Blackberry, iPad, iPhone, iPod, Kindle Nintendo 3DS, Nokia devices, PlayStation 3, PlayStation 4, Wii U, and Xbox One.

In 2012 Foxconn branches manufactured around 40% of all consumer electronics sold worldwide.

#### **History and Achievement:**

Foxconn was established by Terry Gouin in 1974 as Hon Hai Precision Industry Co., Ltd. as an electrical components manufacturer.

In year 1998 Foxconn's has the first manufacturing Branch in mainland China which opened in Longhua Town, Shenzhen.

In 2001 the company brand Intel changed its manufactures motherboard from ASUS to Foxconn.

In November 2007 Foxconn has announced his plans to establish another branch in Huizhou, Southern China with cost equal to US\$500 million.

In March 2012 Foxconn accepted to participated 10% shareholder the Japanese electronics company Sharp Corporation with US\$806 million and to purchase almost the 50% of the LCDs manufactured at Sharp's companies in Sakai, Japan. In September 2012, Foxconn declared plans to invest US\$494 million to create 5 factories in Itu, Brazil providing with that 10000 opportunities of jobs.

In 2014, Foxconn purchased Asia Pacific Telecom which is has some spectrum licenses at an auction which enable it to operate the fourth generation (4G) telecommunications tools in Taiwan.

On March 26, 2018, unit of Foxconn, Foxconn Interconnect Technology, declared purchasing of Belkin international for \$866m.

#### Branches of Foxconn:

Foxconn has the major factory in China with 12 factories, also in South America investment is in Brazil, in Europe countries also Foxconn has factories such as: Hungary, Slovakia, and the Czech Republic.

In Foxconn in Czech Republic is the second largest exporter in the Republic.

Another country Foxconn has factories are: India, Japan, Malaysia, Mexico Middle East, South Korea and United states.

#### Major customers:

Foxconn has major customers:

- Acer Inc. (Taiwan)
- Amazon.com (United States)
- Apple Inc. (United States)
- BlackBerry Ltd. (Canada)
- Cisco (United States)
- Dell (United States)
- Google (United States)
- Hewlett-Packard (United States)
- Huawei (China)
- InFocus (United States)
- Intel (United States)
- Microsoft Corp. (United States)
- Motorola Mobility (United States)
- Nintendo (Japan)
- HMD Global (Under Nokia Brand) (Finland)
- Sony (Japan)
- Toshiba (Japan)
- Vizio (United States)
- Xiaomi (China)

Source:(Foxconn, 2012)

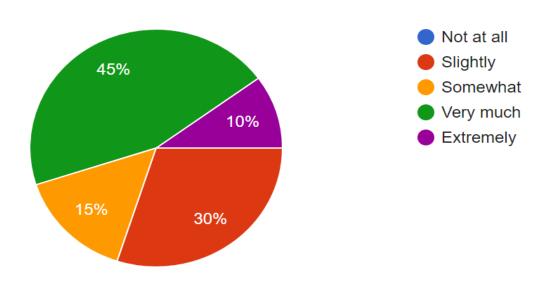
# 4.1. Analysis of results

After preparing the questionnaires on the impact of technology on human resources for the human resources department and the employees. The questionnaires were sent to the Foxconn Company. The questionnaires were made online on the website (https://docs.google.com) in the English language the employees and Human resources department answered the questionnaires by using the link.

# 4.1.1. Human resource department result

The collected results were listed in a table (see the table in the Appendix C), the columns of this table shows a number of the questionnaire from 1 to 20 and the rows presenting the answers of the questions from 1-7 of an individual questionnaire.

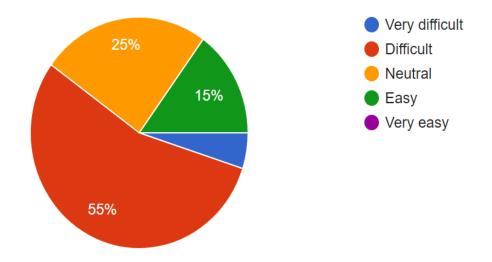
Figure 6: How HRMS helps the company to reach its goals?



Source: author

From the questionnaire the first question was about how human resources management system helps the company to reach its goals from the 20 People the results were 0 percent not help at all, 30 percent slightly, 15 percent somewhat, 45 percent very much, 10 percent extremely as can be seen from Figure 6.

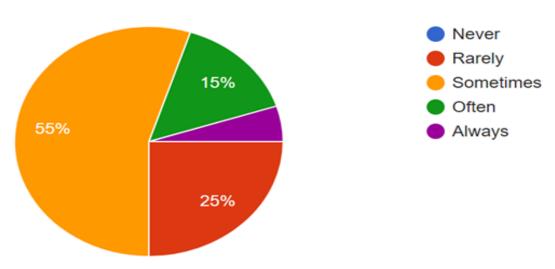
Figure 7: How challenging is HRMS



Source: author

From the questionnaire the second question was about how challenging is HRMS from the 20 People the results were 5 percent very difficult, 55 percent difficult, 25 percent neutral, 15 percent easy, 0 percent very easy as can be seen from Figure 7.

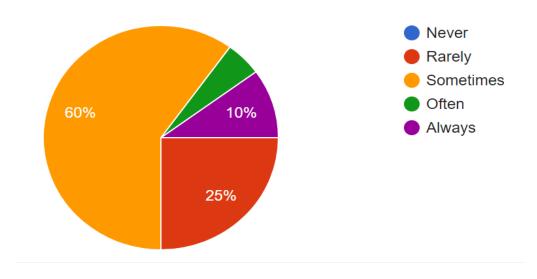
Figure 8: Difficulties with introducing technology into human resources



Source: author

From the questionnaire the third question was about Difficulties with introducing technology into human resources from the 20 People the results were 0 percent never, 25 percent rarely, 55 percent sometimes, 15 percent often, 5 percent always as can be seen from Figure 8.

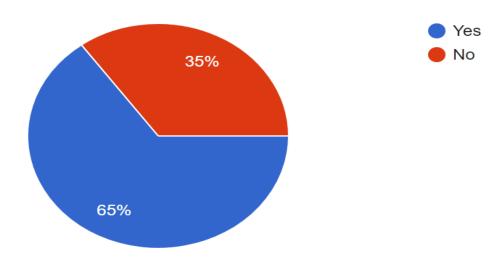
Figure 9: How often do you encounter external influences in introducing technology



Source: author

From the questionnaire the fourth question was about How often do you encounter external influences in introducing technology from the 20 People the results were 0 percent never, 25 percent rarely, 60 percent sometimes, 5 percent often, 10 percent always as can be seen from Figure 9.

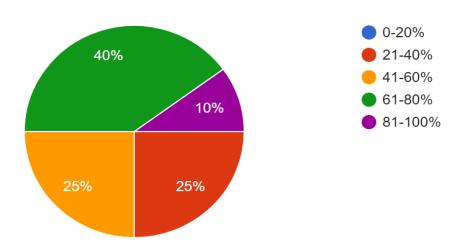
Figure 10:Do the introduction of technology helped to reduce expenses of the company



Source: author

From the questionnaire the fifth question was about do the introduction of technology helped to reduce expenses of the company from the 20 People the results were 65 percent yes, 35 percent no as can be seen from Figure 10.

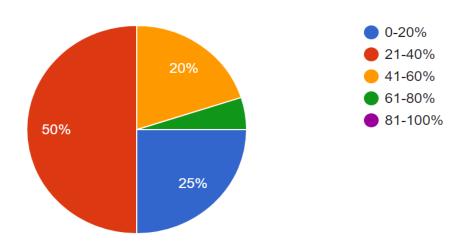
Figure 11: Please assess the extent of advantages, which you have from introducing technology



Source: author

From the questionnaire the sixth question was about Please assess the extent of advantages, which you have from introducing technology from the 20 People the results were 0 percent 0-20%, 25 percent 21-40%, 25 percent 41-60%, 40 percent 61-80%, 10 percent 81-100%, as can be seen from Figure 11.

Figure 12:How many disadvantages do you face in relation introducing technology



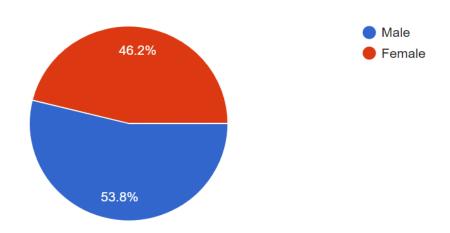
Source: author

From the questionnaire the seventh question was about how many disadvantages do you face in relation introducing technology from the 20 People the results were 25 percent 0-20%, 50 percent 21-40%, 20 percent 41-60%, 5 percent 61-80%, 0 percent 81-100%, as can be seen from Figure 12.

# 4.1.2. Company's employees result

The collected results were listed in a table (see the table in the appendix D), the columns of this table shows a number of the questionnaire from 1 to 40 and the rows presenting the answers of the questions from 1-9 of an individual questionnaire.

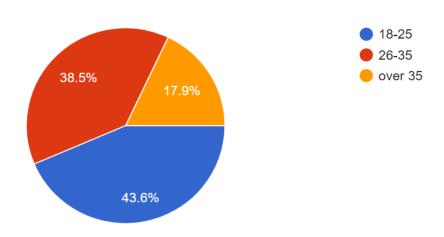
Figure 13:The gender of employees



Source: author

From the questionnaire, the first question was about what is the gender of employee from the 40 People the results were 53.8 percent male, 46.2 percent female as can be seen from Figure 13.

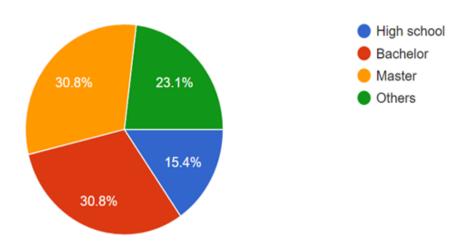
Figure 14:The age of employees



Source: author

From the questionnaire, the second question was about what is the age of employees from the 40 People the results were 43.6 percent 18-25, 38.5 percent 26-35, and 17.9 percent over 35, as can be seen from Figure 14.

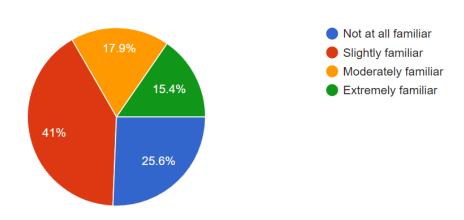
Figure 15:Level of academic qualification



Source: author

From the questionnaire, the third question was about what is the level academic of employees from the 40 People the results were 15.4 percent high school, 30.8 percent bachelor,30.8 percent master, , 23.1 percent others as can be seen from Figure 15.

Figure 16: The percent of familiarity with development of technology in company

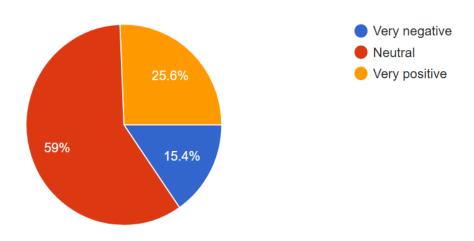


Source: author

From the questionnaire, the fourth question was about how the employees familiar with the development of technology in the company from the 40 People the results were 25.6 percent

not at all familiar, 41 percent slightly familiar, 17.9 percent moderately familiar, 15.4 percent extremely familiar as can be seen from Figure 16.

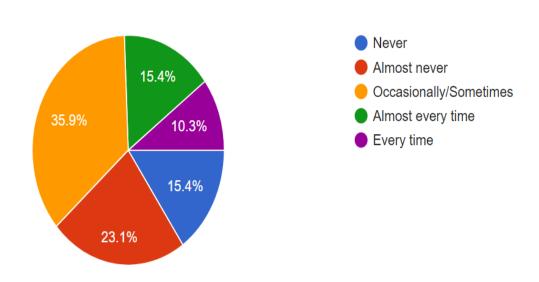
Figure 17:The current state of HRMS technology



Source: author

From the questionnaire, the fifth question was about what the current state of HRMS Technology Company from the 40 People the results were 15.4 percent very negative, 59 percent neutral, 25.6 percent very positive as can be seen from Figure 17.

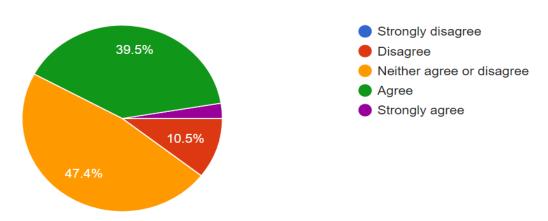
Figure 18:using technology in HRM



Source: author

From the questionnaire, the sixth question was about how often do you use technology in human resources from the 40 People the results were 15.4 percent never, 23.1 percent almost never, 35.9 percent occasionally/sometimes, 15.4 percent almost every time, 10.3 percent every time as can be seen from Figure 18.

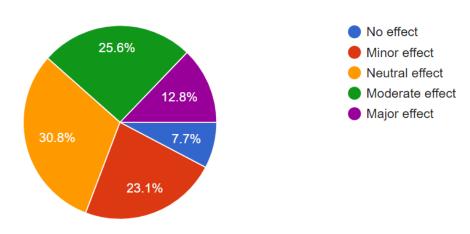
Figure 19:Using technology in HRM decreasing tasks and reduces costs



Source: author

From the questionnaire, the seventh question was about do you agree that using technology in human resource decrease task time and reduce costs from the 40 People the results were 0 percent strongly disagree, 10.5 percent disagree, 47.4 percent neither agree or disagree, 39.5 percent agree, 2,6 percent strongly agree as can be seen from Figure 19.

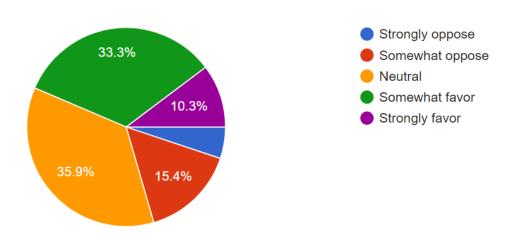
Figure 20: Using technology in human resource and automating helps affects the unemployment rate in society



Source: author

From the questionnaire, the eighth question was about do you think that using technology in human resource and automating helps affects the unemployment rate in society the 40 People the results were 7.7 percent no effect, 23.1percent minor effect, 30.8 percent neutral effect, 25.6 percent moderate effect, 12.8 percent major effect as can be seen from Figure 20.

Figure 21: Using of technology in support of HRM helps to speed up the access to information and making decisions based on information available



Source: author

From the questionnaire, the ninth question was about do you think that the use of technology in support of HRM helps to speed up the access to information and making decisions based on information available the 40 People the results were 5.1 percent strongly oppose, 15.4 percent somewhat oppose, 35.9 percent neutral, 33.3 percent somewhat favor, 10.3 percent strongly favor as can be seen in Figure21

### 4.2. Result

As it is well-known the involvement of technology in so many sectors of life that we are witnessing in our daily life, even technology has played a significant role in Human Resources Management in a bigger scale that has changed its nature based on the advanced technique which should be engaged in any HRM department in order to reach higher efficiency, less effort, lower cost, diverse environment and so on. Thus, this thesis comes to prove the main core ideology of the impact of technology in Human Resources Management because it is significantly important to realize how the nature of RHM takes place and has been shifted with the introduction of technology in big businesses, companies or even start-up projects.

Drawing the final result of this thesis comes mainly based from a taken survey that has been set to reach to the answers of research questions:

### Q1: What the effect of human resource technology in unemployment?

The using of technology on human resource management it is effect but it wasn't that much affection in the unemployment rate as can be seen in the result of the figure 20 in the questionnaire.

In the present era, the development of technology has been widely used in many areas, including the Department of Human Resources Management, but Those technologies did not affect significantly in the rate of unemployment and the reason is those technologies were replaced with employees to help in daily tasks but at the same time those technologies provided many opportunities jobs to use those technologies.

### Q2: Do employees get familiar with introduce technology in human resource?

with the development of the technologies on human resource and with less experience of using those technologies by employees, as it was the result in figure 16, approximately half of the employees of that company are slightly familiar, the employees face some difficulties to be familiar with those advancement technologies, therefore the company could offer some training course to the employees before using those technologies.

### Q3: How to evaluate the pros and the cons of introduction the technology?

Using the technologies in human resource that have advantages but it was in different percentages as can be seen in figure 11 but in the same time can't be forgotten the

disadvantages of using those technologies in human resource for that the company should increase the advantages of using them in the same time the company should notice their disadvantages and try to provide suitable solutions to decrease their cons.

## Q4: Does the technology help the company to reach its goals?

In the present the companies try to reach their goals and increase their profitability by using the advancement technologies in all sectors of the business the reasons that those technologies helping the companies because they provide data and information that necessary for the decision-makers in the company to help them make the right decisions, speed up and easier access to that information, helping to produce higher quality outcome, provide better services, helping the employees to do their daily tasks with using less effort and cost

### 4.3. Conclusion and Recommendation

### 4.3.1. Conclusion

As it's known that the important of technology in the business and daily process in the companies it becomes a major component of human resource management which improve and support the business cycle.

In conclusion of this thesis and through the study of the technology in human resource and its impact in human resource department the research questions have been answered through the theoretical part and the practical part.

The impact of technology on human resource seems to be successful in the term of the current situation for the companies to apply it in their human resource system

In the theoretical part of this thesis was highlighted on technology and its influence on human resource management. The thesis started with a definition of human resource, brief the history of it and gave some examples of practices in human resource management. Next, the study focuses on technology in brief and its importance in the daily life. Later examine the role of technology in Human resource management, the relationship between technology and human resource management, the evolution of technology on Human resource management, and information human resource system.

The questionnaires were used in the practical part for analyzing and evaluating the impact of human resource management and the pros and cons of using the technology in human resources. It was used two questionnaires one of them sent to the human resources department and the other one for the employees in a Foxconn Company. From the feedback and the results, it can be used to advance and improve using technology in human resource management and helping the employees to be more familiar with those technologies. A study of technology and its impact on human resource management it is concluded some results:

- -Using technology on human resources management it can help the company to reach its goals, reduces expenses and decrease task time of the company.
- the using of technology on human resource management it can support to speed up the access to information and help in the process of making decisions in the companies.
- Using the technology on human resource management gives some advantages for the business but at the same time, we can't forget about its disadvantages.

### 4.3.2. Recommendation

Due to the analysing case for Foxconn company its seems to change to new policy in human resources which is depending on central human resources company could provide courses lessons for the employees to be more aware and familiar with the new legislation and technologies for example with GDPR specially with high costly for the program .encouraging employees to participate with the languages courses for better improvement in the interaction communication.

It seems there are some challenges and obstacles which the company could consider and become more flexible.

Foxconn could introduce the advanced technologies and encourage the employees to use them more because it helps them to be more familiar with those technologies.

Since there are some effects of shifting to using the technologies in human resource management the companies could create new job opportunists to solve the problem of increase in the unemployment rate in the society.

# Appendix A: Human resource department questionnaire

How	HRMS	helne	the	company	tο	reach	ite	goals?
now	CIVIAL	Helbs	uie	Combany	w	Teach	118	20ais:

	• •		
Α.	Not	o t	പ
Д.	INOL	aı	an

- B. Slightly
- C. Somewhat
- D. Very much
- E. Extremely

## How challenges of HRMS?

- A. Very difficult.
- B. Difficult.
- C. Neutral.
- D. Easy.
- E. Very easy.

Do you face Difficulties with introducing technology into human resources?

- A. Never
- B. Rarely
- C. Sometimes
- D. Often
- E. Always

How often do you encounter external influences in introducing technology?

- A. Never
- B. Rarely
- C. Sometimes
- D. Often
- E. Always

Do the introduction of technology helped to reduce expenses of the company?

- A. Yes
- B. No

Please assess the extent of advantages, which you have from introducing technology?

- A. 0-20%
- B. 21-40%
- C. 41-60%
- D. 61-80%
- E. 81-100%

How many disadvantages do you face in relation introducing technology?

- A. -0-20%
- B. 21-40%
- C. 41-60%
- D. 61-80%
- E. 81-100%

# **Appendix B:** the employees' questionnaire

#### Gender:

- A. Male
- B. Female

#### How old are you:

- A. 18-25
- B. 26-30
- C. 31-above

### Level of academic qualification:

- A. High school
- B. Bachelor
- C. Master
- D. others

Are the employees familiar with development of technology:

- A. Not at all familiar
- B. Slightly familiar
- C. Moderately familiar
- D. Extremely familiar

What is the current state of HRMS technology?

- A. Very negative
- B. Neutral
- C. Very positive

How often do you use technology in HR?

- A. Never
- B. Almost never
- C. Occasionally/Sometimes
- D. Almost every time
- E. Every time

Do you agree that using technology in HRM decrease task time and reduces costs?

- A. Strongly disagree
- B. Disagree
- C. Neither agree or disagree
- D. Agree
- E. Strongly agree

Do you think that using technology in HRM and automating helps affects the unemployment rate in society?

- A. No effect
- B. Minor effect
- C. Neutral effet
- D. Moderate effect
- E. Major effect

Do you think that the use of technology in support of HRM helps to speed up the access to information and making decisions based on information available?

- A. Strongly oppose
- B. Somewhat oppose
- C. Neutral
- D. Somewhat favor
- E. Strongly favor

Appendix C: The answers of the human resource department questionnaire

	1	2	3	4	5	6	7	8	9	10
Q1	В	С	D	D	D	D	В	С	D	В
Q2	С	D	В	В	В	В	В	D	A	В
Q3	В	В	С	С	С	D	С	С	D	С
Q4	С	В	С	С	С	В	С	В	С	С
Q5	A	A	A	A	В	A	В	В	A	A
Q6	D	С	С	D	D	D	В	В	Е	С
Q7	В	В	С	В	С	В	С	В	В	В

	1	2	3	4	5	6	7	8	9	10
Q1	В	С	В	D	Е	D	D	В	D	Е
Q2	В	С	В	В	В	С	В	С	С	D
Q3	D	С	С	С	В	В	В	С	Е	С
Q4	С	С	С	В	С	С	В	D	Е	Е
Q5	В	В	С	A	A	A	A	A	В	A
Q6	В	С	В	D	С	D	В	D	Е	D
Q7	D	В	С	В	A	A	A	A	A	В

Appendix D: The answers of the employeesquestionnaire

	1	2	3	4	5	6	7	8	9	10
Q1	В	В	A	А	А	A	В	А	A	А
Q2	A	Α	В	В	В	В	С	А	В	В
Q3	А	Α	В	С	С	В	D	А	D	В
Q4	А	А	В	В	В	В	А	А	В	Α
Q5	А	А	С	В	В	В	В	А	В	В
Q6	В	В	С	Α	С	С	Α	Α	С	Α
Q7	С	С	D	D	D	С	С	С	С	С
Q8	Α	Α	E	С	С	В	Α	С	В	В
Q9	С	С	E	D	D	D	С	В	В	D

	1	2	3	4	5	6	7	8	9	10
Q1	В	В	Α	Α	Α	В	В	Α	В	Α
Q2	В	Α	С	Α	Α	Α	В	Α	Α	С
Q3	С	Α	Α	D	D	D	С	Α	С	D
Q4	В	В	Α	Α	В	В	В	А	В	Α
Q5		В	Α	В	В	В	В	В	С	С
Q6	В	В	В	Α	С	В	А	С	В	E
Q7	С	С	С	В	С	В	С	С	D	С
Q8	В	В	С	С	С	В	С	В	D	E
Q9	D	D	С	С	D	С	С	С	В	D

	1	2	3	4	5	6	7	8	9	10
Q1	В	В	A	A	В	A	А	В	А	В
Q2	С	В	В	А	В	Α	В	С	С	Α
Q3	В	С	С	В	С	D	В	С	С	В
Q4	С	D	С	В	D	D	D	D	С	В
Q5	В	С	В	Α	С	В	С	С	В	С
Q6	С	D	D	В	С	D	E	С	С	С
Q7	D	D	D	С	D	D	E	С	D	
Q8	В	D	D	С	E	D	E	D	С	С
Q9	Α	Е	Е	С	Е	D	Е	С	С	D

	1	2	3	4	5	6	7	8	9	10
Q1	В	Α		Α	В	В	Α	А	В	В
Q2	Α	А		А	В	Α	А	С	В	В
Q3	D	В		В	С	В	В	D	С	В
Q4	С	С		В	В	С	D	С	Α	В
Q5	В	С		В	С	В	В	В	А	В
Q6	С	D		D	D	С	E	С	В	E
Q7	D	D		D	С	В	С	D	В	D
Q8	D	E		D	С	В	D	D	D	В
Q9	D	D		В	С	Α	D	В	В	С

## **Bibliography**

- Foxconn. (18. February 2012). Načteno z https://en.wikipedia.org/wiki/Foxconn Technology. (2015).
- *University of Nebraska*. (2018). (University of Nebraska) Získáno 21. March 2018, z Job analysis: https://hr.unl.edu/compensation/nuvalues/jobanalysis.shtml/
- Alert, D. (10. September 2013). Positive & Negative Effects Of Technology On Our Lives. *My Daily alerts* .
- Amaeshi Uzoma Francis. (12. December 2013). Human Resource Management and Technology Transition. *International Journal of Advancements in Research & Technology*.
- Bodi, V. (2015). *Technology Is Changing Human Resource Management But Where Will It Go?* The HRand Employee engagement community.
- businessdictionary. (2018). Získáno 2018, z http://www.businessdictionary.com/definition/inputs.html
- businessdictionary. (2018). Získáno 2018, z http://www.businessdictionary.com/definition/processing.html
- businessdictionary. (2018). Získáno 208, z http://www.businessdictionary.com/definition/output.html
- companyconnecting. (2017). Technology. company connecting.
- conceptdraw.com. (nedatováno). Načteno z conceptdraw: https://conceptdraw.com/a3187c3/preview
- Danielle Weber. (26. September 2016). *Technology: Advantages And Disadvantages*. Načteno z https://www.theodysseyonline.com/technology-advantages-disadvantages?sec=pop24&utm\_expid=.53hHQ\_sIS\_GVYl9TPM4psw.1&utm\_referrer=
- أثر استخدام تكنولوجيا المعلومات والاتصال على أداء الموارد البشرية .(2015). Fatima twahiri
- Forest, E. (2018). *Definitions of Educational Technology*. Načteno z Educational Technology: https://educationaltechnology.net/definitions-educational-technology/
- Funk, K. (1. Sep 1999). Technology and Christian 'Values'. *Technology and Christian 'Values'*.
- Heba Soffar. (8. May 2015). What are the positive and negative effects of technology. *online science*.
- HRM, C. (2016). *History of Human Resources Management*. Načteno z Creative HRM: http://www.creativehrm.com/hr-management-history.html
- Iman Kataf, Laila. (2012). The role and importance of technological innovation in creating a competitive advantage: Towards achieving sustainable development.

- Importance of technology. (2015). *Importance of technology in our daily lives*. Načteno z http://www.importanceoftechnology.info/about-us/
- Julie Bulmash. (2008). HUMAN RESOURCES MANAGEMENT AND TECHNOLOGY.
- Kelley, B. (2009). Industrialization of mAb production technology: The bioprocessing industry at a crossroads. *Industrialization of mAb production technology: The bioprocessing industry at a crossroads*, 443-452.
- Ken Funk. (01. September 1999). *Technology and Christian 'Values'*. Získáno 2018. March 21, z http://web.engr.oregonstate.edu/~funkk/Technology/index.html#technology
- Marco Maatman. (13. December 2006). Measuring the effectiveness of e-HRM.
- Matthias Heymann. (January 2006). Hubris and Hybrids: A Cultural History of Technology and Science. *Research Gate*.
- Mohammed Murtda. (23. January 2016). The role of technology in our life.
- Mortada, M. (2016). The role of technology in our lives. The role of technology in our lives.
- Muhammed Swalih. (4. March 2017). *Technology Advantages and Disadvantages*. Načteno z Tech Quintal: https://www.techquintal.com/technology-advantages-and-disadvantages/
- Neal Litherland. (26. September 2017). Získáno 2018, z https://bizfluent.com/about-5403995-importance-modern-technology.html
- Nick Ismail. (10. Apirl 2015). *Modern technology: advantages and disadvantages*. Načteno z Information age: www.information-age.com/modern-technology-advantages-disadvantages-123465637/
- organization, W. h. (2017). Health technology assessment. world health organization.
- Paul Goodman. (2016). The Advantages and Disadvantages of Technology. Soapboxie.
- Sampurna Majumder. (22. Mar 2016). *Medium*. Načteno z https://medium.com/@realtynewsIndia/6-components-of-human-resource-information-systems-hris-39d239cb1714
- Sherman, F. (14. March 2018). How Does Technology Impact HR Practices? Chron.
- Slideplayer. (nedatováno). *Slideplayer*. Načteno z Slideplayer: http://slideplayer.com/slide/7817808/
- Techspirited. (2018). Získáno April 2018, z https://techspirited.com/importance-of-technology
- TRP. (2018). Advantages and Disadvantages of Technology.
- UKEssays. (23. March 2015). Importance of technology. *Technology*.
- V. Thamarai Selvan. (2015). Study on role of technology in Human Resources management. *International Journal of Applied Research*(7).

Vaishali Sinha. (6. October 2017). What are the positive and negative effects of technology? *Quora*.

VinayKumar S. (2015). The Historical Background Of Human Resource Management.

Williams, T. a. (1960). A short history of technology. Oxford University.

ZUZANA KALMÁROVÁ. (1 2012). *TECHNOLOGY CHANGES HUMAN RESOURCES ROLE:*. Načteno z Human Resources Management & Ergonomics: https://frcatel.fri.uniza.sk/hrme/files/2012/2012\_1\_04.pdf

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### TOPIC IN CZECH:

Vliv technologie na lidské zdroje

#### TOPIC IN ENGLISH:

Impact of Technology in Human Resources

#### SUPERVISOR:

doc. Ing. Hana Mohelská, Ph.D. - KM

#### RESEARCH PLAN:

- Introduction
- Objectives and Methods
- Literature Review
- Research Methodology
- Results
- Discussion
- Conclusion
- 8. Bibliography and References

### List of recommended literature:

- Gómez-Mejía, L., Balkin, D. and Cardy, R. (2009). Managing human resources. Upper Saddle River, NJ: Prentice Hall.
- 2. Olivas-Lujan, M. (2013). Social Media in Human Resources Management. Bingley, Yorkshire: Emerald Group Publishing Limited.
- Ivancevich, J. and Konopaske, R. (2013). Human resource management. New York, NY: McGraw-Hill Irwin.
- 4. DeCenzo, D., Robbins, S. and Verhulst, S. (2013). Human resource management. Hoboken, NJ: Wiley.
- 5. Marler, J. and Parry, E. (2015). Human resource management, strategic involvement and e-HRM technology. The International Journal of Human Resource Management, 27(19), pp.2233-2253.

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# Declarations

I declare I wrote the Bachelor's thesis "the impact of technology on human resource management "myself, using only listed bibliography.

The research was done under the support and guidance of doc. Ing. Hana Mohelska Ph.D. In Hradec Kralove.

Date 15.3.2019

Signature