

Rochester Institute of Technology

RIT Digital Institutional Repository

Theses

8-2019

Human Resource Technology and the Changing Role of Human Resource Professionals

Eris Çunaku
exc7120@rit.edu

Follow this and additional works at: <https://repository.rit.edu/theses>

Recommended Citation

Çunaku, Eris, "Human Resource Technology and the Changing Role of Human Resource Professionals" (2019). Thesis. Rochester Institute of Technology. Accessed from

This Senior Project is brought to you for free and open access by the RIT Libraries. For more information, please contact repository@rit.edu.

RIT Kosovo

Human Resource Technology and the Changing Role of Human Resource Professionals

Honors Project

Advisor: Venera Demukaj, Ph.D.

By: Eris Çunaku

August, 2019

Table of Contents

Acknowledgments	4
Abstract	5
List of Abbreviations	6
List of Tables	7
List of Figures	7
1.0 Introduction	8
1.1 Statement of the Problem	9
1.2 Background Information	10
1.3 Research Hypothesis and Research Question	11
2.0 Methodology	13
2.1 Secondary Data Overview	13
2.2 Primary Data Overview	13
3.0 Literature Review	14
3.1 A Review on HR Literature	14
3.2 The Union Movement	15
3.3 The New Industrial Revolution and the Future of HRM	19
3.4 The Types of HR Technology	22
3.4.1 Human Resource Information Systems	22
3.4.2 E-HRM	24
3.5 Outsourcing of HR Services	27
4.0 Findings and Results	28
4.1 The Impact of HR Technologies: A Global Perspective	28
4.3 Kosovo Case Study	31
4.3.1 Interview Results: Perspective from HR Managers and CEOs	31
4.4 Survey Results	32

5.0 Discussion	35
5.1 Limitations	37
6.0 Recommendations and Conclusions	38
References	40
Appendix	45
Appendix 1	45
Appendix 2	47
Appendix 3	47

Acknowledgments

First and foremost, I would like to thank my parents, my sister and my family for motivating me through this research paper and always being available for anything I would need help with. Next I would like to thank Professor Venera Demukaj, who was my mentor during this whole journey, and always being available for help during any difficult time. Another thank you goes for Professor Alex Butler for his continued support and availability to help out with any questions on this topic.

Hard work can never be done on your own without the people along the way, no matter the amount of contribution, their help has brought you one step closer to the finish line. So, thank you!

Abstract

The focus of this research is to understand the changing role of HR professional through technological advancements. This includes looking into recruitment technologies which reduce the amount of time it takes recruiters to go through every application. Additionally, this thesis will focus on understanding these implications in different countries who have introduced these technological advancements and comparing them to a developing country, such as Kosovo. Kosovo, as a case study, provides an insightful view of how an under-research and under-developed HR program and field can affect the businesses and organizations in the country. The research shows that the role of HR will shift towards training, development and strategic roles for the most part, while also concentrating on reward systems and benefits for the employees. The lack of data on HRM and the lack of HR technologies in Kosovo, make it difficult to understand how citizens of this country view the role of an HR manager. Lastly, it gives recommendations on how this situation can improve in Kosovo and why the use of HR technologies is important in helping to shift these new roles of HR professionals, in the benefit of them but also for the organization and employees.

Keywords: human resource management, technology, information systems

List of Abbreviations

HRM- Human Resource Management

HR- Human Resource

HRIS- Human Resource Information System

AI- Artificial Intelligence

CEO- Chief Executive Officer

E-HRM- Electronic Human Resource Management

HRO- Human Resource Outsourcing

ASI- American Schools International

RIT- Rochester Institute of Technology

List of Tables

Table 1: The Difference between Personnel Management and Human Resource Management

Table 2: Key information taken from the interviews

Table 3: HR Task Importance

List of Figures

Figure 1: Date of establishment of personnel departments, 1900-1922

Figure 2: The e-HRM Model

Figure 3: Age demographic

Figure 4: Level of Work Experience

Figure 5: Available HR positions within an organization

Figure 6: Level of knowledge on HRM

1.0 Introduction

Employees are considered to be a company's greatest strength. Without dedicated and motivated employees, a company or organization can never reach its goals and objectives. The main tactic for every company or organization to reach their goals and objectives is to have dedicated and motivated employees. However, companies had no way of understanding this correlation before, and therefore, might have mistreated their employees because they knew that there was no one to protect them (Kaufman, 2008). As company's productivity started to decrease alongside employee's motivation, employees started to realize their power in this direct correlation, they started to form unions. Before the development of Human Resource Management as a field of study, little to no importance was given to an employee's well-being and fair treatment in the workplace. The idea of what we consider now as Human Resource Management (HRM) was initially known as "the 'Personnel' function prior to the 1960s, and the focus sat mainly with the administration of core activities such as payroll or timesheets" (Boroughs, A., Palmer, L., & Palmer, M. L., 2008). Later on, we enter a wave of union movements, where employee needs are set at a higher priority. With the impact of unions in determining company policies, we also have the development of Human Resource Managers.

For many years, however, HR managers were considered to be "a wolf in sheep's clothing" and considered as an employee whose loyalty stands with the company (Sharma, 2008). Although, in the beginning, this was certainly the case, however, this perception started to gradually change as HR managers put the interest of their fellow employees first, while also staying loyal to the objectives of the company (Sharma, 2008). Human Resource Management is currently an important function of every company, since it improves the working environment and relationships of its employees with the company. It does this through professional development, fair treatment, appraising, and safety, making sure employees are happy with their jobs, hence, providing the company motivated and hard-working employees. Human Resource Managers or Departments are almost never present in small to medium-sized businesses, since Managers deal with most of the HR duties. Thus, technological developments have made it possible for even small and mid-sized businesses to have access to HR information systems and electronic HR services (Yu, 2009). Globalization

has also had a great impact on HR, to bring more focus on talent management, hiring internationally, inclusion and diversity (Tubey, R., Rotich, K. J., & Kurgat, A.,2015).

With all these technological advancements, this paper seeks to understand how the role of HR managers has changed over the years, specifically looking into recruitment technologies, which reduce the amount of time it takes to go through every candidate's application. Understanding these aspects from the perspective of businesses in a developing country, such as Kosovo, is what this thesis will also focus on. The reason why Kosovo is considered as a case study, is to highlight how under-researched and under-developed this field is in Kosovo, while comparing it to other countries who have reached these technological advancements in HR positions.

1.1 Statement of the Problem

People are and always should be the center of every company's or organization's focus. Without the right people, and without the right tools and techniques to keep them motivated, it would be very difficult for organizations to operate. Thus, the job of a Human Resource Manager is crucial for the success of an organization. Tubey, Rotich and Kurgat define Human Resource Management (HRM) "as a strategic and coherent approach to the management of an organization's most valued assets – the people..." (2015). HR managers also help the company from committing any crimes by firing employees unfairly, or recruiting people in an unfair manner, where gender or ethnic diversity should be considered. Therefore, they are advocating for employee's rights while also keeping in mind the interest of the company.

Through technology, like many other jobs, the job of a human resource manager has also changed drastically. This includes how a human resources manager takes care of employee needs, recruits, talent management and how development opportunities and employee benefits are curated. Human resource management is not yet as developed or taken as seriously in many developing countries, such as in Kosovo. A study on the impact of human resource (HR) managers in the investments on small and medium-size enterprises in Ferizaj (Kosovo) shown that 60% of employers do not believe that HR management has a crucial impact on the rise of capital investments in their company (Hashani & Bajrami, 2015). This can mainly be attributed to the fact that most of the small and mid-sized enterprises are

family run businesses. Nevertheless, even if a business which is not family run, there are little to no employees who deal with HRM (Hashani & Bajrami, 2015). Thus, this paper analyzes how technology has changed the role of human resource manager in the modern era, while also looking specifically if and how these changes have affected the human resource managers in a developing country, such as Kosovo.

1.2 Background Information

The term Human Resource Management developed in the late 1970s. Before that, HRM was also known as Personnel Administration, which was then mostly concerned with payrolls and timesheets, which then evolved to also include hiring and training process for employees (Tubey, Rotich, & Kurgat, 2015). As Sharma (2008) explains, “the move towards what is today recognized as human resource management was in response to a number of environmental factors such as political, social, economic and technological”. The movements for better employee management started during the industrial revolution in the 18th century, when machinery was first introduced and workers were starting to understand how this might affect their jobs (Pandian, 2018). That is known as the first industrial revolution where employees started to be replaced by machinery. After a while employees would also start breaking the machinery because they saw it as a threat. With the first revolution ending, the second industrial revolution era, including mass production using electricity, enters. With the impact of electricity and the power it gave people to innovate, we enter the third industrial revolution which started as “the IT and electronics revolution ushered in from 1969, which gained momentum and evolved into digital technology beyond the 1980s taking us to the edge of the 4th digital revolution, when we see artificial intelligence (AI), biotechnology and the Internet of Things completely change our world” (Tarry, 2018).

Factory workers who were concerned with their working conditions, communications and conflicts with their employers, started to understand how threatening these unifications of unhappy workers could become. From this, a number of unions emerged, who were threatening these businesses to improve their working conditions. Then different organizations stepped in, which helped businesses develop tools of communication and understanding and to what is now known as Human Resource Management (Tubey, Rotich, & Kurgat, 2015). Then, in the early 1990s, with the introduction of information technology and e-commerce, the term ‘e-HR’ started to develop more and more. “E-HR refers to

conducting human resource transactions using the internet technology” (De Alwis, 2010). There are also have Human Resource Information Systems, or HRIS, which consist of databases, application and software to help with data collection, storage, interpretation and manipulation for HR services (Yu, 2009). This new era of online HR systems “allows employees to control their own personal information by updating records and making decisions, and allows managers to access information and data, conduct analyses, make decisions and communicate with others, without consulting the HR department” (De Alwis, 2010). As technology grew, companies started to wonder how it may change the job description and the role of HR managers. As we have come to see, now HR managers have a more powerful role in reaching company goals and objectives through concentrating in talent management and personal development rather than recruiting and data collection (Kaur, Sidhu, Sharma, Narang, & Kaur, 2014). With that said, it does not mean that technology has reduced the importance of HRM, it simply has shifted its focus to a field of HRM which needs more attention, such as talent management.

“Success of every business depends on adopting itself to the environment within which its function” (Pandian, 2018). In Kosovo, the importance of HRM is still in its development stages, since many businesses do not have these departments or people to do these jobs. And those who do, are not sufficiently utilizing them. One of the main reasons may also be the fact that most businesses are family businesses, where most of their employees are family members. Another reason may also be the fact that most of the businesses are small to medium-sized businesses, leaving little to no room for development of an HR department (Hashani & Bajrami, 2015). With that said, most of what people consider HR in most businesses in Kosovo are duties which were part of Personnel Administration.

1.3 Research Hypothesis and Research Question

Evidence from the literature suggests that the reason that advancements on HR, whether that includes new technologies or even having an HR manager, do not happen within an organization is because these organizations simply do not believe in the necessity for these advancements (Kaufman, 2008). Thus, we continue having technologies available to be used and companies who do not understand the importance of these technologies and the effect that these technologies have on the role of HR managers within their company.

For the purpose of this paper, the following question has been addressed:

1. To what extent do HR technologies affect the role of HR managers within an organization?

Following this research question, the following hypothesis has been devised:

1. Human Resource Technologies have had a great impact on the role an HR manager has within an organization, shifting their focus by affecting what types of jobs they do and how tasks are performed.

This research question and hypothesis will help guide this thesis paper, through data collection and analysis.

2.0 Methodology

This research concentrates on collecting and analyzing available research on human research development and different HR technologies available. Information on Kosovo is collected through primary sources, namely semi-structured interviews and a survey with employed individuals in Kosovo firms.

2.1 Secondary Data Overview

For secondary data, which will be the main source for this qualitative research paper, I used research papers, journals and articles on this topic to help shape the scope of this research and help build a strong background for the research and findings of this paper. This is done in order to have relevant information to be compared to future findings in this paper. Analyzing HR technologies which are used and determining how they operate within each business in the duties of an HR manager, or how the goals and hierarchy of each company help determine the structure of different HR systems, whether those are online or not.

The paper will also look into the adaptation or the availability of different countries and then compare it to Kosovo, by also identifying the factors that might cause for the adaptation of HR technologies, such as HRIS and e-HRM, to increase. When learning about HRM, it is important to understand the development of this field in different countries so that there a more thorough understanding of the state of HRM and how it can be improved. For this research there will be an insight on the development of HRM in different countries in different stages of this field and the use of HR technologies. Some of these countries being the United States of America, Turkey, Bangladesh and generally in Europe. The insight taken from these countries will shed light on the importance culture plays in the development and importance of HR in a changing role of HR managers through new HR technologies.

2.2 Primary Data Overview

For the survey, the population sample focuses on people who are have work experiences with and without a HR position in the workplace. The survey was conducted by 217 participants. More information on the questions of this survey can be found in Appendix 1 of this paper.

This research will also be based on interview with HR managers and also companies who provide HR related services, mostly in the field of recruitment, and questions whether

HR managers believe these technologies are beneficial for them and the company. Therefore, the objective is to first understand the roles of HR managers in small to medium sized businesses in Kosovo, then analyze their understanding of HR technology and if they think the role of HR managers has changed in recent years. Additionally, because many small and mid-sized businesses do not usually have HR managers, consulting with the CEO or business manager will also provide insight into why HR is not a field they give importance to, and if they use any HR technologies instead. This research consists of eight interviews with CEO & HR Managers, which were conducted over a period of four weeks. The interviewees consist of two representatives from private education institutions in Kosovo, and five private companies. These were semi-structured- interviews with 10 questions which lasted about 30 minutes.

3.0 Literature Review

3.1 A Review on HR Literature

The literature review helps us explore more concepts and build concrete evidence for further understanding the changing role of HR managers in a technologically advanced workplace. Kaufman (2008) writes that “Labor historians were focused on the union movement and typically gave the corporate personnel function only passing attention, and to that time no business historian had yet written a major scholarly analysis of the early years of HRM”. Even during the beginnings of the development of HRM, one of the most prominent scholars was Alfred Chandler, who completely neglected writing in regards to labor and the personnel function, and their relation to the developments in the management field. This shows the undermined relevance HRM had before the 1970s. Then, we continue with two contributions by Daniel Nelson and Sanford Jacoby, who treated the first stages of HRM during the periods of World War I and World War II, through the book-length *Managers and Workers: Origins of the Twentieth Century Factory System in the United States, 1880-1920* and *Employing Bureaucracy: Managers, Unions, and the Transformation of Work in the 20th Century*, respectively. Both authors give insight in the early stages of HRM in the United States and how factories changed their way of labor management when employees increased from hundreds to tens of thousands, making new efforts for better control, stimulation and utilization of their workers. The authors also explore the “antecedence of HRM to two earlier

movements, the rise of scientific management and industrial welfare work, and Jacoby also highlights the contribution of the vocational guidance movement” (Kaufman, 2008).

Kaufman (2008) elaborated more on the foundations of HRM and the work of historians and intellectuals who helped build this foundation by noting:

“A foundational work on employers’ labor policies and practices in the years 1920-1932 is Irving Bernstein’s *The Lean Years*. Also providing excellent overviews, sometimes in the context of the case studies, are books such as David Brody’s *Workers in Industrial America*, Lizabeth Cohen’s *Making a New Deal: Industrial Workers in Chicago, 1919-1939*, Howard Gitelman’s *Legacy of the Ludlow Massacre: A Chapter in American Industrial Relations*, Gerald Zahavi’s *Workers, Managers, and Welfare Capitalism*, and Richard Gillespie’s *Manufacturing Knowledge: A History of the Hawthorne Experiments*. The most detailed account of the development of HRM as a practice area in American industry in this period is Jacoby’s *Employing Bureaucracy*, supplemented by his subsequent book *Modern Manors: Welfare Capitalism since the New Deal*. Also available are studies of individual employers HRM practices during the 1920s. The most notable example concerns employee representations” (p.38).

With that said, it is shown how important literary work is to the development and the importance of a field, such as HRM at the time, and that is what all these works have in common with one another, the shared importance of HRM. Without these works the importance of HRM would still be undermined by different industries and companies and it would not be where it is today, as a crucial part of an organization and an important tool for the employees and to the company. As mentioned, one of the most important steps towards HRM’s development as a field of study, was the Industrial Revolution.

3.2 The Union Movement

One of the first steps toward the development of HRM was the formation of unions, in the late 1930s. In the midst of two wars, there was a shortage of workers and an increased demand for production, which meant that workers had to work more hours to meet that demand. Additionally, companies wanted to make sure that their employees were happy and did not feel the need to leave the job or go into strikes. That is why, so-called, welfare

department and officers were brought up to help employees be happy (Sharma 2008).

Company unions were started by employers who wanted to impress the government or present a different reality to the public. As Nelson (1982) noted, “Company unions did not bargain for wage increases, have contacts with other workers’ groups, require dues, support officers, strike, or in other ways measure up to trade unions”. Sharma (2008) further explains how in the 80s, as the impact of sharing information in IT started to affect companies, employees began to look for better jobs who paid more. Then, as globalization grew, we see an increase in competitiveness among companies for human resources as well. Companies were trying to make their employees feel appreciated, with the help of these. With unions, then we see a great rise of personnel departments being established in different companies, to help build upon this collectivity of employees and try to control it by constructing pension funds and compensation plans, especially for accidents and injuries during work.

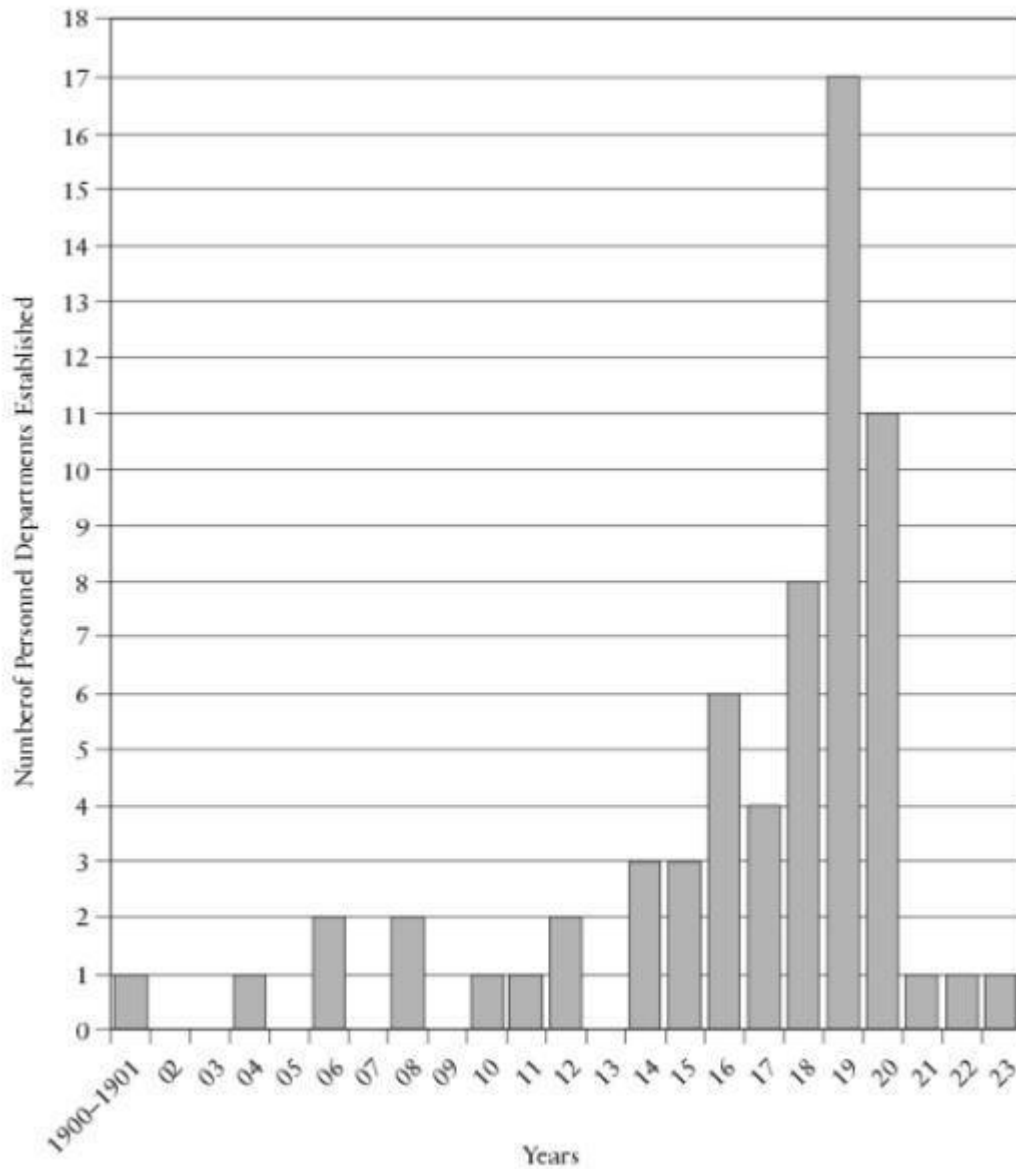


Figure 1: Date of establishment of personnel departments, 1900-1922

The above figure describes the number of Personnel Departments which were established over a 23-year period, from 1900 to 1923. An interesting observation can be made during the years 1918 to 1923, where we see a drastic increase and an immediate drop to the number of established Personnel Department, within a 5-year period, going from a peak 17, in 1919, to 1, in 1921. “The data here comes from a survey of seventy-four firms done in the year 1924. These firms are not a representative sample but were selected by the researcher from among companies known to be active in PIR work” (Kaufman 2008). The sudden increase of the number of Personnel Department can be related to the events which were

happening around the world during that time. Year 1918 marked the end of World War I, which could have been the cause for this increase, while seeing the impact and need of these Personnel Departments after this event. However, it is not very clear as to what caused the drastic decline on 1921-1923. Kaufman also writes that if the same firms were to be surveyed again, “the adoption line would turn up again in 1923 or so and show a distinct rising trend over the remainder of the decade (2008). With all this said, it is important to understand that events like this, and the ones which will be mentioned later, are the backbone to understanding the future of HRM and how HRM can evolve to something greater. This can also help us understand why HR departments are a crucial part of an organization in some places and not so crucial in others, depending on the history of the country bit also of the organization itself.

Factor	Personnel Management	Human Resource Management
Time and planning perspective	Short term, reactive, <i>ad hoc</i> , marginal	Long term, proactive, strategic, integrated
Psychological contract	Compliance	Commitment
Employee relations perspective	Pluralist, collective, low trust	Unitarist, individual, high trust
Preferred structure/system	Bureaucratic/mechanistic, centralized, formal/defined roles	Organic, devolved, flexible roles
Roles	Specialized/professional	Largely integrated into line management
Evaluation	Cost minimization	Maximum utilization (human asset accounting)

Table 1: The Differences between Personnel Management and Human Resource Management

Figure 2, which was retrieved from the article *History, Evolution and Development of Human Resource Management*, shows the differences between Personnel Management and Human Resource Management to help us understand how the two are very different fields of study and how HRM has evolved to become a field of great impact within in an organization through its crucial factors of employee relations perspective, role and evaluation among others.

3.3 The New Industrial Revolution and the Future of HRM

HRM is growing as a field in a very rapid pace and "...HR professionals should be able to adopt technologies that allow the reengineering of the HR function, be prepared to support organizational and work-design changes caused by technology..." (Kaur, M., Sidhu, L. S., Sharma, S., Narang, S., & Kaur, R., 2014). However, it is also important to understand how these technological advancements in the field of HRM align with your business needs in the HR department. As Hester Yu (2009) explains, "... a successful HRIS must align with the corporate businesses strategy and corporate technology to build a realistic framework of technology that supports HR activities to meet present and future business requirements, and to build a workable plan to get to there". With that said, every business wants to create the most profit from their service or product, however, to do that businesses need a motivated workforce to help them reach that goal. Yu (2009) continues by explaining that a big step for changes in the HR department is first recognizing the importance of HRM and having the support of management to implement HR related projects. Something as simple as a staff retreat, with a team-building activity or training session can bring more happiness than most people think.

Hashani and Bajrami (2015), highlight that countries with developed HR department are more prone to attract foreign investors. With that said, for a developing country like Kosovo, development in the HR department are crucial. Needless to say, "technology can be used to support HR activity across the entire employment cycle...", however, it should still be led by professionals who understand these data and know how to handle it (De Alwis, A. C., 2010). Especially when discussing HR technologies, companies or organizations should be ready to implement these technologies by having the adequate staff to run them and know how to interpret certain data for future HR implications.

Humanity is believed to have experienced four industrial revolutions until now. Professor Schwab "defines the first three industrial revolutions as the transport and mechanical production revolution of the late 18th century; the mass production revolution of the late 19th century, and the computer revolution of the 1960s" (Bawany 2018). As we step into a fourth industrial revolution, which includes the Internet of Things, artificial intelligence (AI) and quantum computing among others, we see the need for a new way of dealing with HRM and the role it will play in the near future. As AI and robots become more and more

common, we enter into a new moral dilemma in determining whether the same benefits and compensation should also apply to robots for doing the same job, or even more, than humans. To what point will technological advances reach ‘human’ capacities, where HRM would have to also consider AI as an area to help these machines reach their greatest potential in the workplace? Would it be ethical not consider AI as an important aspect of a company’s workforce? Would there be a new field of HRM which deals only with AI and robots or would they be part of HRM? Will automation lead to job losses?

With all these questions, HRM will also have to adapt to these changes in the workforce and find ways to adapt artificial intelligence and robots to their needs and wants. Now, this may seem a huge step for HRM but considering that flexible work schedules, working from home, or company offered trainings were considered a huge step not even a decade ago, shows how much and how important these steps of improvement are to the company. Even something as simple as how companies hire employees has changed drastically. The importance of a CV or resume has changed a lot over these last few years. As Tom Dunlop, a writer for the Guardian, writes, “This new field of recruitment, dubbed workforce science, is based on the idea that the data individuals create while doing things online can be harvested and interpreted and to provide a better idea of a person’s suitability than traditional methods” (2017). It is becoming more important the types of skills a person has than where and when he or she graduated from. Dunlop continues with the importance LinkedIn has also played in becoming an important tool for recruitment, through its Talent Solution database, designed specifically for companies to find employees (2017). He further explains how “LinkedIn is a huge repository of information about workers and the skills they have. It is a platform where people can talk to each other about work, advertise their talents, exchange information about their fields of interest and expertise, and communicate privately” (Dunlop 2017). In other words, LinkedIn is an interesting website which merges the ideas of a social network and an online recruitment platform with an online CV created by you.

Alongside these big steps we also see a shift of the HR functions, which because of the fourth industrial revolution, are becoming more based on data. In his article of how the fourth industrial revolution will impact HR in East Africa, Summers writes about how “HR departments have more workforce data than ever - data that they can use to drive better decision-making and to shape superior employee experiences. They can use HR analytics to

help managers and senior leaders make better decisions for the business” (2018). Therefore, as many have thought of HR in the personnel administration and recruitment aspect for the most part, with these new technological advancements it is clear that HR is also shifting its focus to keeping their employees trained and skilled for these technological advancements and automation of the company.

Furthermore, Dunlop explain how we are stepping into a transition of competition between humans and machines, and it will affect the lives we live, the type of work we do, and how much time we spend at work (2017). “For humans to thrive in such an environment – this new environment of which recruitment is a leading indicator – we will need to drastically rethink all aspects of our economy, from education through to social welfare through to retirement. The sooner we start that rethink, the better” (Dunlop 2017). Therefore, as Teachout mentions, as we go through this transition towards the fourth industrial revolution, we should start focusing on how we can establish an environment where both AI and humans can work together (2018). In other words, we ought to move past our differences and come together to find ways how we can integrate this new industrial revolution into our workforce and organization structure, with our human capacities.

Consequently, the role of HR in this new era of the industrial revolution of great importance. That is, through understanding how these new technologies can come into play, while also developing trainings and reskilling the workforce, since according to Sushman Biswas, “by 2022, no less than 54% of all employees will require significant re- and upskilling (2019). As an HR manager, that is a crucial task which will change the focus of what the role of an HR manager will be in this near future. Therefore, not only has the role of HR managers to change because of technological advances within the field, we see the changing environment of the workforce and industrial revolution have a great effect to the role of an HR managers as well. To accommodate this new task of re-skilling, companies and HR managers must establish a plan of what skills their employees have and what skills have to be taught for future need (Biswas 2019). Biswas further explains how companies such as AT&T and PwC have spent millions of dollars to upskill their employees, either specifically for their jobs or through other ways of learning technologies (2019). “The skills shortage will only get more acute as technology evolves and the war for talent intensifies. Given this

reality, it is crucial for organizations and HR leaders to develop a solid understanding of the skills they already have and the skills they will need in the future” (Biswas 2019).

3.4 The Types of HR Technology

3.4.1 Human Resource Information Systems

As we move into this new business environment, managers and CEOs have to understand how to use their workforce to make the best business decisions possible, and that can only be done with the involvement of HR departments through human resource information systems and electronic human resources. Khan explain how the “traditional role of HR managers in the procurement, deployment, development, appraisal and reward management of the employees has also changed to a great extend in its approach with the paradigm shift in the people management” (2007). According to Renae Broderick and John W. Boudreau, new HR technologies have also helped managers and CEOs determine “how head count, turnover, skill inventories, or performance ratings affect their units’ business objectives” (1992). Nevertheless, the adequate use of these technologies has to be aligned with the business objectives and strengthen the importance HR managers have in a company. In establishing a successful human resource information system, we have to everything regarding that company, from its objectives, organization structure, and workforce to even incentivizing changes in the organizational culture itself (Yu, 2009). Therefore, to further understand the establishment of a successful HRIS we will be looking at these aspects which make up an HRIS in greater detail.

Firstly, we must have a clear understanding of the company’s organizational structure, workforce, planning models and general personnel administration knowledge (Yu, 2009). “A company’s organizational structure is the foundation that supports critical business processes by defining the organizational setup and workforce deployment” (Yu, 2009). The HRIS should serve as a form of following chain of command in order to ease the workflow, access of data, plan costs, and also serve as a template for future restructuring of the organization (Yu, 2009). In regards to the workforce it is crucial to various types of employees, such as full-time, part-time, temporary and so forth, so that through the HRIS the company can organize its workload and workforce in the most efficient way possible.

Additionally, because of the changing business environment, companies also have to consider flexibility in the workplace such as “telecommuting, flexible time schedules, virtual

office, alternative workweek, work at home, compressed workweek, voluntary reduced hours, and contractual work have started taking a concrete shape in the new economic environment” (Srivastava, 2000). With that said, HR managers, alongside line managers, have to come up with a productive workforce during the day, while considering these flexibilities, which in one hand might hinder the company from being highly effective but in the other hand will ensure their employee satisfaction within the company and a positive organizational commitment towards the company. According to Purang, “Organizational Commitment is an important theme that continues to appear in the individual’s psychological attachment to an organization” (2008). Additionally, as Purang explains, according to many studies, HR departments have a crucial role in increasing an employee’s commitments towards a firm (2008). That is why, having a well-developed HR department which works with these HRIS for more flexibility in the workplace, will ensure a more committed workforce.

Secondly, one of the great functions an HRIS does is also with personnel administration, which includes information on payroll, promotions, vacations and more. Currently, most companies which do not have HRIS use Microsoft Excel for storing employee data which is not always very easy to use and does not have the same impact as HRIS databases on personnel administration. Through databases, HR managers can rely on these information to help managers make better decisions. As far as the database goes, “maintenance of data should be designed on a user-friendly online-navigation platform, coupled with a process-oriented data entry to facilitate speedy and efficient data maintenance” (Yu, 2009). Of course, all these databases should be designed according to the preferences and needs of each company and their relevant functions. Additionally, this system needs to also consider in factors such as benefits, payroll, compensation, traveling for business and others, which should all take a crucial part of the system but also of the personnel administration, and HR role in general. As management of compensation and payroll are some of the most crucial functions on this database, it is important for this module “to provide users with fixed and variable compensation data to plan and implement a competitive and motivating reward system” (Yu, 2009).

With that said and as we analyze these systems, we start questioning of what the role of an HR manager is or might be soon. Of course, the role of HR managers will always remain very important, however, it is the tasks and duties that will change this role to

something that deals more specifically with motivation and team building. As Custer also explain in his article on *Rethinking Existing HR Technologies for New Gains in Employee Engagement and Benefits*, through “leveraging resources and technologies already available in a company’s human resources department, many employers can provide additional benefits—especially those that promote career growth and flexibility—in a cost-effective and easily managed way” (2013). As with every other job, we are moving towards more innovative ways of getting that job done, therefore, as Ichniowski, Casey, and Shaw explain on their article *Beyond Incentive Pay: Insiders' Estimates of the Value of Complementary Human Resource Management Practices*, what may have been innovative then, such as having rotational work, might be seen as a common function now (2003). That is why, companies have to move alongside technological advances and HR managers have to push for these new technologies in the field of HR to be implemented within their respective organizations.

3.4.2 E-HRM

A big part of HR technologies is also e-HRM, which focuses on HR functions that can be done through the internet. Ruël et al. (2004) explain how HRIS and e-HRM are significantly different, since HRIS focuses on improving the processes of HRM, therefore making the target the HR staff, whereas for e-HRM, besides the focus of the business, it also focuses on the employees, and how to help them keep track of their performance and integration within the company. In their view, “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” (2004). Whereas Yu defines e-HRM as a form of offering “technological support for access to information on HR services to people outside the HR department, it allows the flow of information and data transactions between relevant stakeholders in order to improve HR practices, reduce costs, and enhance services” (2009). Recognizing this, through the implementation of e-HRM, HR managers and departments should expect less administrative work, and help HR managers focus on strategic goals rather than administrative ones (Ruël et al., 2004). Inevitably, this will cause for fewer position for the administrative aspect in HR departments. However, many other jobs in the current globalization and industrial era are going to be reduced, therefore, arguing whether HR technologies should be applicable is not even a question we can ask.

Next, just like with every market, to understand the types of e-HRM, companies also have to understand their own needs and wants which fit best for their companies. Ruël et al., (2004) acknowledges three types of e-HRM: operational, relational and transformational. They further explain the differences among the three by explaining how the operational e-HRM deals with the administrative aspect such as payroll, the relational type helps with more advanced activities such as recruitment, training and rewards, and last but not least, the transformational type is concerned with the strategic aspect of the business, in decision-making and management techniques (2004).

Another important characteristic of these e-HRMs are the outcomes that they produce for their respective companies. Beer et al. write about four outcome goals for HRM, which include commitment, competence, cost effectiveness and congruence (1984). As Ruël et al. break down these four characteristics, we understand that commitment is considered to be the aspect of having motivated employees who are willing to connect with higher levels of management for the benefit of the company but also for their fellow workers. With competence, the idea of learning new tasks and identifying new opportunities within certain circumstances and with cost effectiveness we are looking into the effects of turnover and actions such as strikes (Ruël et al. 2004). Lastly, in regards to congruence, Ruël et al. refer to a structure within the organization which is of interest to all stakeholders, an example of which could be reward systems for employees (2004). Recognizing this, we can observe how these four elements are consistent with the characteristics of e-HRM, in the sense that the focus is still the employee and the interest of the workforce, for the betterment of the company as a whole.

This is portrayed very well in Fig. 2, taken from E-HRM: Innovation or Irritation by Ruël et al., which looks at e-HRM as a cycle of recognizing goals, types and outcomes. Nevertheless, as businesses and organizations continue to use web based HRM functions, and even human resource information systems, we find HR departments being affected the most, giving HR managers more time to concentrate on strategic decision-making. As Ruël et al. (2004) explain, “Fewer administrative tasks and a decrease in HR related questions from employees and line management, for example about training and development opportunities, will create this available time”.

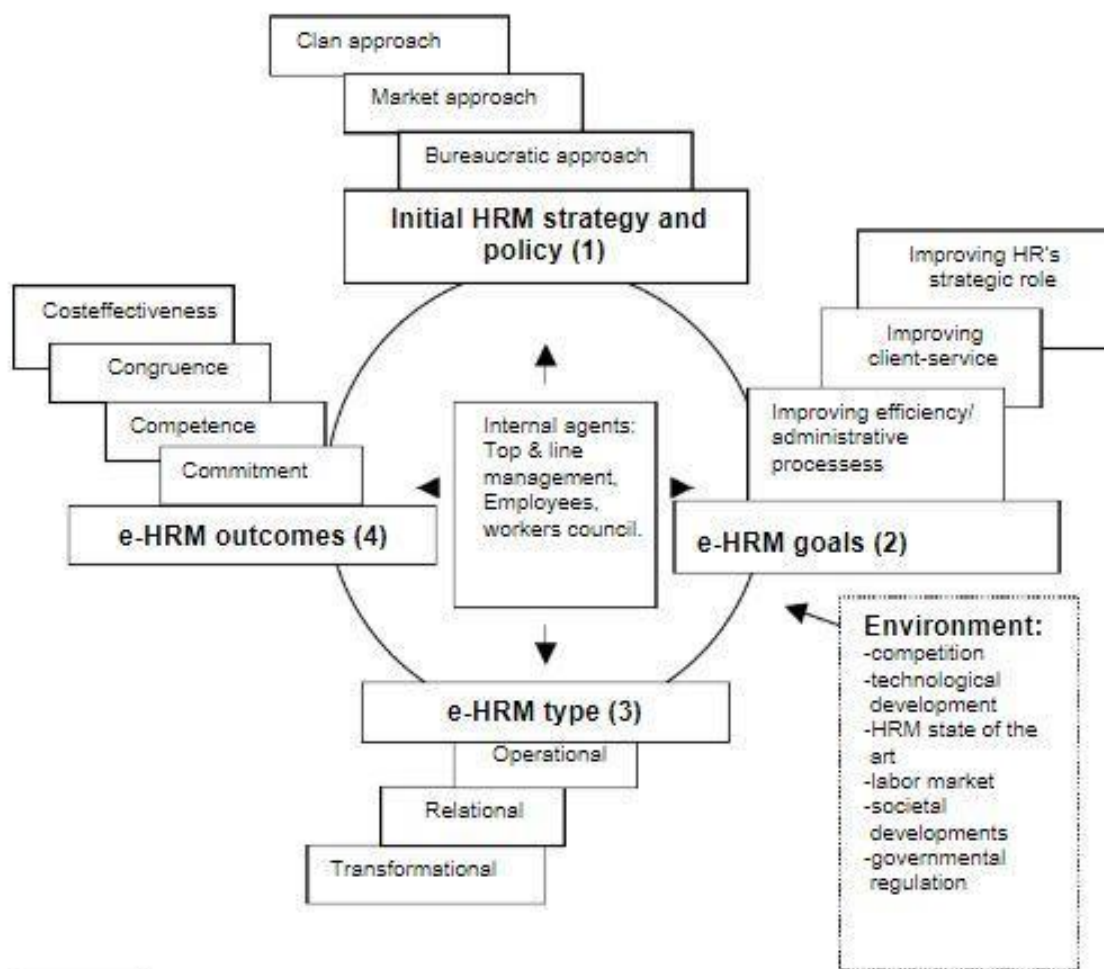


Figure 2: The e-HRM model

There are also a few online databases which are worth mentioning and analyzing how they help companies with their HR functions. Most of these systems, since online, provide services for small to medium size businesses and companies. One of the most famous online HR databases is BambooHR, known as the number one HR software for small and medium businesses. BambooHR allows its users, instead of using spreadsheet, to create a connection between employee and company through the online platform, by helping employees keep track of their performance, time off, and satisfaction, which simultaneously helps the employee as well. Their slogan concentrates on the fact that HR is not about paperwork but rather about the people. Additionally, BambooHR helps companies and HR managers with recruitment through their online database applicant tracking system and HR reporting for better insight on the applicants but also on other employees.

Another great online HR database is also NaturalHR, which similar to BambooHR, helps small to medium size companies. Online HR databases such as NaturalHR and BambooHR are certainly important for small to medium size businesses because of their inability to hire an HR manager for such a small number of employees, which is usually the excuse. However, as businesses continue to grow, online HR databases as the previously mentioned, are not a solution. Even though a great solution for small and medium size businesses, having an HR manager in bigger companies is crucial for the functions of the company, since, as was mentioned before, it helps the company reach its goals and objectives with the help of motivated employees, who are satisfied with their employer and the work that they do.

3.5 Outsourcing of HR Services

Outsourcing of services within a business is become more common every year, especially when it comes to new systems which are now offered to companies through web-based engagement. The main reasoning for this is that usually it costs companies less money to outsource than to pay their own employees to do a specific job. Pollitt writes how there is a common belief that human resource outsourcing, or HRO, are going to demolish human resource professionals' jobs and lose the connection with companies (2005). However, Pollitt explains how "HRO arrangements have proven to be strategic partnerships that help to put people matters at the top of corporate strategic decision-making" (2005). Of course this opportunity may bring advantages and disadvantages. The main advantages for outsourcing HR functions may be the reduced costs, since, as Hamlin explains, "earns more than \$75,000 per year, plus benefits" (2019). As was mentioned before, most small business owners run all HR functions on their own, because of the high costs of having an HR manager. However, most of these small business owners do not have any knowledge of HRM, which might be a huge risk when taking into consideration owners might run into legal issues, for which HR professionals have more knowledge of and might save the company thousands of dollars. As Delmotte and Sels explain, "drivers of HR outsourcing are gaining specialized HR expertise, achieving flexibility, reducing risks and enhancing access to advanced technology" (2008). Wallo and Kock also mention how many companies focus only on the cost effective side of outsourcing, however, when it comes to HR services there are many other implications which a company gains besides the financial aspect, one of which, as was mentioned, is the experience the e-HRM platforms bring with them (2018).

4.0 Findings and Results

The results section of this paper concentrates on the results from the secondary research on the development and the state of HRM in different countries around the world and the results from the interviews as part of our primary data on this topic. In this section, these results will only be demonstrated and later analyzed and reviewed in the Discussion section. Because the results of the primary data are mostly focused in Kosovo, this will, hopefully, serve as a case study for future implications and a form of comparison between Kosovo and other nations.

4.1 The Impact of HR Technologies: A Global Perspective

After defining these new HR technologies and looking at their implications, it is also crucial to look into the impact these technologies have for the role of HR professionals. Similar to every new technology, its main purpose is to improve and ease a job or a service, therefore, even with HR technologies it is expected for these changes to have a positive impact on the roles of HR professionals. According to Bal, Bozkurt & Ertemsir (2012), “the use of HRIS can provide a number of benefits not only to the HR function, but also line managers, and the wider organization”. They further explain how HRIS gives “an opportunity for human resource professionals to become strategic partners with top management” (2012).

Similarly with web technologies or e-HRM, Bal, Bozkurt & Ertemsir (2012) explain how these HR technologies “will leave HR specialists more time for strategic decision making and that outsourcing of people-management activities will liberate HR specialists to perform more strategic activities”. With the help of these new technologies, employees can also do most administrative work on their own. And with less administrative work to be done, “HR professionals can also act as a competency manager by arranging the right people to the right positions at the right time with their new 55 strategic architecture role”, thereby shifting their administrative or operational roles to strategic ones (Bal, Bozkurt & Ertemsir, 2012).

In the United States, Kaufman (2014) reports that in 2010 “the Society of Human Resource Management announced it had a membership of over 200,000 people, including many high level HR vice presidents and well-known academics and consultants”. This would show how promising HRM is in the US, however, as Kaufman (2014) later mentions that because of “increased global competition and stronger pressure from financial markets for

larger short-term profit, many American companies have faced mounting pressure to streamline operations, focus on core competencies, and reduce cost". The need to make the HRM function more efficient and cost effective gives great opportunities for HR technologies. That is why many new businesses are starting off with e-HRM through online websites, so that they can attract the new Generation Y and Z employees, who are always looking for better ways of HRM within a company.

Turkey is experiencing a shift from a more traditional to a modern form of personnel management. This phenomenon is interesting since a lot of Turkey's HRM techniques are also determined by the culture and Muslim religion. Syed and Pio (2017) "suggest that there is no inherent conflict between Islamic faith and modern workplaces, and therefore any potential areas of friction between Islam and contemporary HRM practices can be managed effectively". This argument, however, might be considered as false, since a workplace's culture is shaped by the culture of the people that work in that organization. As Kaufman (2014) mentions, "Islamic philosophy is the basic reason that family and religious belief are of great importance in the Turkish way of doing business". Another important connection here is also the way how employer and employee conflicts are solved, where more than 65 percent of these conflicts are resolved through the help of third parties (Kaufman 2014). When it comes to HR technologies, one of the most common uses in Turkey is in the function of recruitment through employment websites, who have provided jobs for more than 500,000 people. Furthermore, Kaufman (2014) mentions that "the spread of e-HR has increased because of Turkish society's widened access to the Internet, businesses creating their own web sites and the ability to provide web-based HR applications".

In Bangladesh we see a need for the digitalization of the HR functions, since the current ones are not efficient and are politicized. This phenomenon is mostly present in the public sector for which there have been multiple tries of implementing e-HRM systems, however, they have always failed. Some of the reasons which Rahman, Mordi, & Nwagbara (2018) mention are the lack of IT professionals in the sector who could help manage these systems, difficulty of implementation and privacy and security issues. However, even with these factors prohibiting the implementation, it is important to mention how Bangladesh is currently in the process of implementing these systems in the public sector while many countries, such as Kosovo, are far behind. Rahman, Mordi, & Nwagbara (2018) further

explain how the “majority of studies on e-HRM focused on the developed region, there are fewer studies in less developed countries such as Bangladesh”.

During their research of over 2,000 companies in 23 countries, Strohmeier and Kabst (2008) came up with some interesting findings in the implementation and the factors that affect the adaptation of HR technologies within organizations in Europe. Some of the main factors include the size of the organization, the industry it is a part of and the employee demography, concentrating on age, gender or level of education. In terms of size and industry Strohmeier and Kabst (2008) mention how “Industries with a high proportion of stationary and clerical work, like banking, promise an uncomplicated adoption, since there is a high share of workplace computers and computer literate employees”. Therefore, in many cases it is more important to look at the industry rather than the size of the organization. Another crucial factor was the demography of the employees. According to their research, Strohmeier and Kabst (2008) have found that organizations “with a high percentage of young, male, and educated employees will more frequently adopt e-HRM”. The next important factor to indicate e-HRM adaptation was also GDP or GDP per capita. Below Figure 3, taken from the study of Strohmeier and Kabst (2008), shows the comparison between the level of GDP per capita and the percentage adaptation of e-HRM. However, the case of Bulgaria is interesting since it shows a country with a lower level of GDP per capita and a higher percentage of e-HRM. The opposite is seen in Cyprus, where the GDP per capita is three times higher than in Bulgaria, and their percentage of e-HRM adaption is almost half of Bulgaria’s. This may be due to different laws and regulations which are currently in these countries. Bulgaria’s labour laws are very specific and are constantly changing and improving to adjust to current trends, as can be seen with the Labour Code which “entered into force in 1987 and has been modified 65 times to date, most recently in February 2010” (Labour Law in Bulgaria, 2014). Whereas the opposite can be seen in Cyprus, where recently improved labour laws mostly concentrate on discrimination (Koushos & Ioannou, 2019).

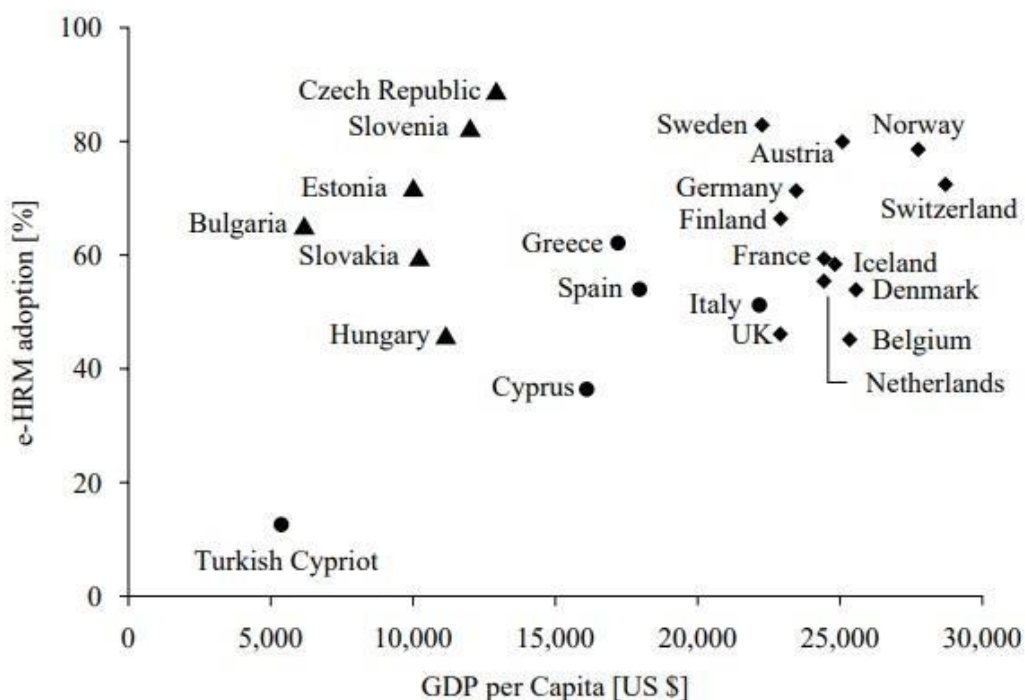


Figure 3: Economic development and adoption of e-HRM

4.2 Kosovo Case Study

The interviews are a crucial part of this study and their results will give us more insight on the current view of the role of HR managers from within an organization, the use of technology within these positions, or their lack of, and also understand how HR managers view their role within the organization. It is also important to mention that whenever a CEO or COO was interviewed, they were seen or considered to be doing the HR related or personnel administrative work. As seen, this would be something very common in Kosovo, therefore leaving room for new technologies, such as e-HRM, to replace these duties.

4.3.1 Interview Results: Perspective from HR Managers and CEOs

Table 2 offers a better understanding at these eight interviews on the perception of HR managers, the use of HR technologies and also a possible correlation between number of employees and available HR positions, but also a type of jobs within a company and available HR positions. Table 2 shows how factors such as the level of education within the organization and the perception of HR roles may influence the availability and need for an HR position within the organization.

	First interview	Second interview	Third interview	Fourth interview	Fifth interview	Sixth interview	Seventh interview	Eighth interview
The company had an HR position	Yes	No	Yes	Yes	Yes	Yes	No	No
The number of employees	40	20	70	20	5	6	35	10
The general education level within the organization	Bachelor degree	High school diploma	Ranging from High School, Bachelor's, Master's and PhD	Bachelor degree	Bachelor and Master's degree	High school diploma	High school diploma	Bachelor degree
The perception of HR professionals in Kosovo	Necessary but not recognized as such	Not very necessary for the company	Necessary but not recognized as such	Very necessary	Very necessary	Necessary but not recognized as such	Not very necessary for his company	Necessary but not as many employees
Knowledge of HR technologies	A little knowledge	Little to no knowledge	A lot but not used	A lot	A little knowledge	Not a lot but wants to research more	Little to no knowledge	A lot but not used

Table 2: Key information taken from the interviews

4.3 Survey Results

The first section of the survey represents the demographic of the participants; section two focuses on the knowledge that the participants have on this topic and the importance they put on an HR professional within an organizations but also understanding which tasks they believe are more important or relevant in regards to this position.

All of the participants were from Kosovo, however, around 72% of those were from Prishtina, Kosovo's capital. The level of work experience that the participants have is mainly from less than one year to 3 years, portrayed in Figure 4. These responses give insight on the younger generation on Kosovo, who have less than three years of experience.

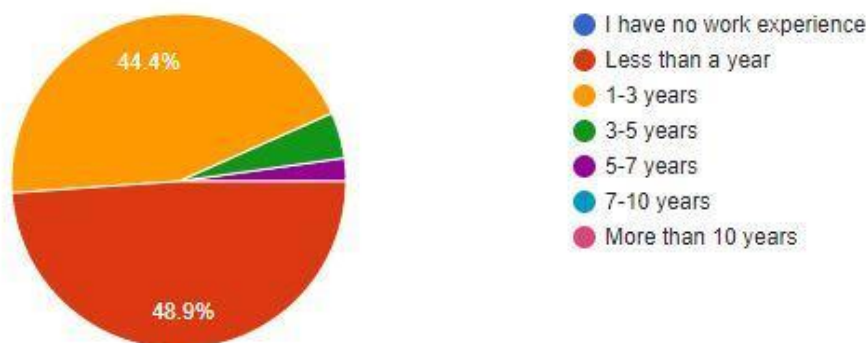


Figure 4: Level of Work Experience

In regards to the question ‘How would you rate the importance of having an HR manager in a company?’, which was from a scale of 1 to 5, 1 being the lowest and 5 being the highest, we see that 64.4% of participants rating the importance of an HR manager as 5, 22.2% as 4, 6.7% as 3, and 6.7% as 2, with 0% rating it as 1. This then becomes important when we compare it to the statistics on the question on the number of employees within the organization the participation is or was working for in his/her last job (if not currently employed), the average of which was about 43 employees, which falls in the category of small businesses or organizations. Additionally, I wanted to know how many of the places they were working in had at least one HR position within the organization. As can be observed in Figure 5, around 22.2% said that all of them had, and another 22.2% said that most of them had an HR Manager. This information however might be difficult to consider since most of the participants has below three years of work experience.

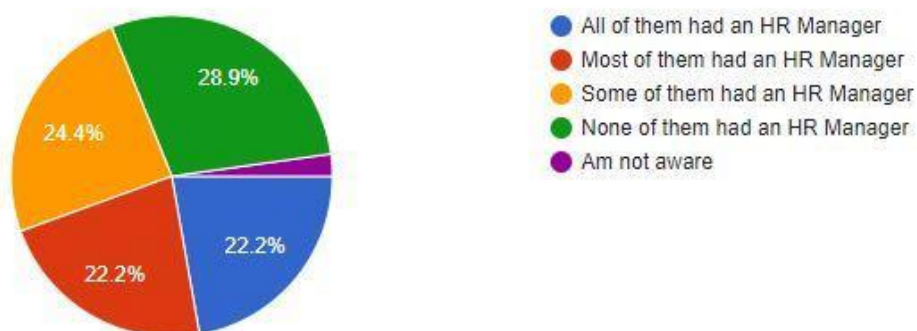


Figure 5: Available HR positions within an organization

Before we look into the perception of HR professional and the main roles of HR professional from our participants, we also have to analyze their perception of how much they believe they know about HRM as a field of study, which enters us into the second section of these results. Figure 6 explains how they would classify their knowledge on Human Resource Management, which for the majority is above average. This helps us understand that the results on the perceived roles of an HR manager are well known by the participants and the results are valid, for this demographic.

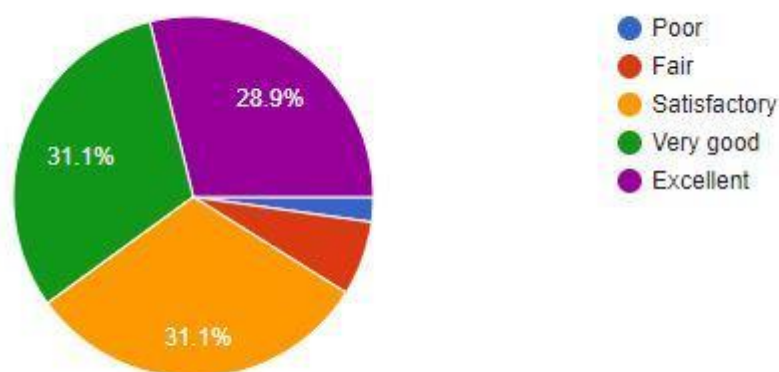


Figure 6: Level of knowledge on HRM

In the second to last question, participants were asked to rate certain HR tasks on their perceived importance on a scale of 1 to 5 (1 being low importance and 5 being high importance). The tasks were presented and the results are portrayed in Table 3. As can be observed some of the main tasks which can be identified are hiring and recruitment, employment talent management, coordinate and supervise the work of employees, and direct disciplinary procedures. The impact and relevance of these results will be analyzed during the discussion section of this paper, for which we seek to come up with conclusions and recommendations.

	Importance level: 1	Importance level: 2	Importance level: 3	Importance level: 4	Importance level: 5
Recruitment and hiring	0.5%	4%	15%	20.5%	60%
Employee talent management	0%	9%	17%	45%	29%
Resolve issues between management and employees	0%	7%	32%	25%	36%
Coordinate and supervise the work of employees	4%	13%	14%	47%	22%
Direct disciplinary procedures	3%	8%	18%	41%	30%
Come up with training & development opportunities	3%	11%	39%	19%	28%
Represent the employee's best interest	5%	19%	42%	10%	24%
Performing job evaluations and job analyses	0%	13%	36%	17%	34%
Establish compensation levels	0%	16%	25%	38%	21%
Establish benefits (health care, retirement plans, bonuses etc)	0%	16%	21%	27%	36%

Table 3: HR Task Importance

5.0 Discussion

The important section of this qualitative research paper is demonstrating through the literature review and findings on the impact of HR technologies, by also looking into their use around the world compares to Kosovo. The findings and literature review have proven show that HR technologies do impact the roles of HR professionals by shifting them from operational roles to strategy planning roles. However, not only do these technologies help HR professionals, but they also help the employees and the organization in which they operate. This is done by giving them the opportunity to do some of the work themselves, at the same time giving them more authority in their own job, which is very important to have in a

workplace. The paper then continues with the findings on the use of HR technologies in different countries so that it can be compared to Kosovo, as a case study. The findings show that the level of income and the awareness about HR functions, are a big indicator on the adaptation of HR technologies. However, Bulgaria and Cyprus show that labour laws also have an impact on these technological advancements. When compared to Kosovo, since there is still no research done on this topic here, the results are at the preliminary stage. Thus, this current study looked into the current level of HRM to identify steps that can move Kosovo's organizations to a better level of HRM through the use of HR technologies.

The information from the survey helps acknowledge that there is only a specific audience this study is portraying, and assumptions regarding other groups cannot be made. However, this then shifts the study to a different viewpoint, because it allows to understand how this young generation views the importance of an HR manager and their tasks within the organization. This information is very helpful to businesses who are going to employ these youngsters in the future. With that said, businesses and organizations can have HR professional tackle this new wave of thinking and look into how HR professionals can work towards creating certain programs, contracts or benefits, or reward systems which have this audience into consideration.

Additionally, this then goes alongside the interviews, which bring light to the different social factors that influence the presence of HR professionals. For example, companies with no HR professional, tend to have employees ranging from 30-50 years old. Whereas, most of the companies with younger employees have an HR manager. It is also important to mention that even though these HR positions were available they did not provide the full capacities to their employees since most of their jobs were still, for the most part, focused on personnel administration and less on other tasks such as reward systems, training and development opportunities and so forth. Alongside this, in the research done by Hashimi and Bajrami on the role of HR in the increased investment on business in Kosovo, and specifically Ferizaj, it shows how the two are very closely related and how hiring an HR professional should be a goal for every company, to increase their investment but also help decrease the difference between top management and employee, which is very present in companies where the level of education of the employees is not above high school (2015).

5.1 Limitations

The study had a view limitation which are worth mentioning and that should be addressed if this study were to be extended in the future. There are two main limitations, the first one being the lack of information from HR practices in the public sector as HR managers from this sector were not cooperative. Their insight on this topic would have helped this research in identifying both aspects in the public and private sectors. The second limitation would be the range of information from the survey (young age groups), helping us identify trends in other age groups as well, and not only on one specific age group. Even though this age group helps us identify their understanding and helps businesses accommodate importance of having an HR manager, it is important to compare and contrast the results from different age groups.

6.0 Recommendations and Conclusions

This study was done with the aim of giving better insight on the topic of HR technologies and how these new technologies are changing the role of HR professionals. Additionally, it sought to shed light on the importance of an HR manager in a developing country like Kosovo. The literature review and findings confirmed the hypothesis that technology has changed the role of HR professionals, whereas the primary research helped us correlate with that, in the sense that it brought up the issue of having an HR professional and the adaptation of HR technologies. According to our findings, I can conclude that the same factors are what hinder both the adaptation of HR technologies around the world and the available positions for HR professionals in Kosovo. Therefore, after all this research there are two recommendations I would give to businesses and organizations who do not currently have an HR position available and also businesses who have one but could improve it. The first one being more focused for organizations in Kosovo and the second one for organizations around the world.

- *Outsourcing HR functions*

A great opportunity for small and medium business, especially in Kosovo, is to outsource HR functions to help the companies make better decisions, and also reach their goals better through their workforce. Since this is also a very cost-effective way of using HR professionals with any administrative or other forms of motivating the workforce. This way, HRM can be promoted more among citizens and its importance can also be seen through their work within the companies or organizations.

- *The use of HR Technologies*

HR technologies are becoming more and more helpful to HR professionals but also businesses. With that in mind, it can be suggested the use of HR technologies for administrative tasks, such as payroll, benefits, rewards, days off, and many others, which could possibly be done without an HR professional but by the CEO or Business Manager. This will allow businesses and organizations to not worry about this aspect of their job, which makes it much easier for keeping track of employee performance but also of relevant information which are known to both the employer and employee. Even though this may also be cost effective, it is not allowing HRM to use its tools to help employees motivate through

their job. This is also the danger of fast technological advancements in developing countries like Kosovo, where we are skipping, for most firms, the importance of having an HR manager and going straight to these technologies, which replace a very crucial part of an HR professional's job, in personnel administration and recruitment.

In conclusion, the research confirms that technology has changed the role of HR managers, by offering new ways of getting the job done through databases and web-based functions. In the case of Kosovo, it can be seen that, as expected that younger generations have a tendency to give high importance to HR professionals and also possess great knowledge about their job. This is very important for businesses to understand since it is crucial for them to satisfy the needs of these young generations within their company, and a way to do so can be by hiring an HR professional and also using HR technologies to shift the role of that HR professional towards training and professional development, reward systems and better representation of the employee interests within top management. Lastly, this research has given me the opportunity to thoroughly study a field I am interested in and plan to continue studying about in my future academic journey.

References

- Bal, Yasemin & Bozkurt, Serdar & Ertemsir, Esin. (2012). The Importance of Using Human Resources Information Systems (HRIS) and a Research on Determining the Success of HRIS. Retrieved from https://www.issbs.si/press/ISBN/978-961-6813-10-5/papers/ML12_029.pdf
- BambooHR. (2018). Retrieved from https://www.bamboohr.com/lp/c-hr-saas-software/?Campaign=capterra&utm_campaign=Capt-DE-LiveDemoRe-20180111-01&utm_content=blank&utm_medium=HUM&utm_source=RS&utm_term=blank
- Bawany, S. (2018). What you need to lead in the Industry 4.0. Human Resources Online. Retrieved from <https://www.humanresourcesonline.net/what-you-need-to-lead-in-the-industry-4-0/>
- Beer, M., Spector, B., Lawrence, P., Mills, Q., Walton, R. (1984). *Managing Human Assets*. New York: The Free Press
- Boroughs, A., Palmer, L., & Palmer, M. L. (2008). HR Transformation Technology: Delivering Systems to Support the New HR Model. Retrieved from <https://ebookcentral.proquest.com>
- Biswas, S. (2019). How to Develop a Winning Skills Strategy in the Fourth Industrial Revolution. *HR Technologist*. Retrieved from <https://www.hrtechnologist.com/articles/digital-transformation/how-to-develop-a-winning-skills-strategy-in-the-fourth-industrial-revolution/#>
- Broderick, R., & Boudreau, J. (1992). Human Resource Management, Information Technology, and the Competitive Edge. *The Executive*, 6(2), 7-17. Retrieved from <http://www.jstor.org.ezproxy.rit.edu/stable/4165061>
- Custers, M. (2012). Rethinking Existing HR Technologies for New Gains in Employee Engagement and Benefits. *Compensation & Benefits Review*, 44(6), 332–335. Retrieved from <https://doi.org/10.1177/0886368713476929>
- Koushos L., Ioannou M., (2019). “Cyprus: Employment & Labour Law 2019”. ICLG. Retrieved from <https://iclg.com/practice-areas/employment-and-labour-laws-and-regulations/cyprus>

- De Alwis, A. C. (2010). The Impact of Electronic Human Resource Management on the Role of Human Resource Managers. *E+M Ekonomie a Management*, (4), 47-60. Retrieved from <http://search.proquest.com.ezproxy.rit.edu/docview/821979706?accountid=108>
- Delmotte J., Sels L., (2008). "HR outsourcing: threat or opportunity?". *Personnel Review*, Vol. 37 Issue: 5, pp.543-563. Retrieved from <https://doi-org.ezproxy.rit.edu/10.1108/00483480810891673>
- Dunlop, T. (2017, February 16). The résumé is dead: Your next click might determine your next job. Retrieved from https://www.theguardian.com/sustainable-business/2017/feb/16/the-resume-is-dead-your-next-click-might-determine-your-next-job?fbclid=IwAR0W-UYRAcI4aE-WrMBT5QgHNOeg9AqwiFx7WILWvO7_9BRqUYuDu9ATQHY
- Hamlin, K. (2019). The Advantages of Outsourcing HR Functions. *Chron*. Retrieved from <https://smallbusiness.chron.com/advantages-outsourcing-hr-functions-21169.html>
- Hashani, M., & Bajrami, R. (2015). Roli i burimeve njerëzore në rritjen e investimeve të NVM-ve. 7-32. Retrieved from <https://dspace.aab-edu.net/bitstream/handle/123456789/324/01-Medain-Hashani-Roberta-Bajrami-Roli-i-burimeve-njer%C3%ABzore-n%C3%AB-rritjen-e.pdf?sequence=1&isAllowed=y>
- Ichniowski, C., & Shaw, K. (2003). Beyond Incentive Pay: Insiders' Estimates of the Value of Complementary Human Resource Management Practices. *The Journal of Economic Perspectives*, 17(1), 155-180. Retrieved from <http://www.jstor.org.ezproxy.rit.edu/stable/3216844>
- Kaufman, B. E. (Ed.). (2014). Development of human resource management across nations: Unity and diversity. Retrieved from <https://ebookcentral.proquest.com>
- Kaufman, B. (2008). Early Human Resource Management: Literature Review. In *Managing the Human Factor: The Early Years of Human Resource Management in American Industry* (pp. 36-54). Cornell University Press. Retrieved from <http://www.jstor.org.ezproxy.rit.edu/stable/10.7591/j.ctt7zfm5>
- Kaur, M., Sidhu, L. S., Sharma, S., Narang, S., & Kaur, R. (2014). Information technology in human resource management: A practical evaluation. *Compusoft*, 3(12), 1437-1442.

Retrieved from

<http://search.proquest.com.ezproxy.rit.edu/docview/1711124645?accountid=108>

Khan, S. (2007). The Future of HR Function and the Challenges before the HR Managers.

Indian Journal of Industrial Relations, 42(3), 430-444. Retrieved from

<http://www.jstor.org.ezproxy.rit.edu/stable/27768083>

Kosovo GDP per capita. (2018). Trading Economics. Retrieved from

<https://tradingeconomics.com/kosovo/gdp-per-capita>

Labour Law in Bulgaria. (2014). Rechtsanwalt Ruskov. Retrieved from [http://www.bulgaria-](http://www.bulgaria-labour-law.bg/start.html)

[labour-law.bg/start.html](http://www.bulgaria-labour-law.bg/start.html)

NaturalHR. (2018). Retrieved from <https://www.naturalhr.com/hr-database/>

Nelson, D. (1982). The Company Union Movement, 1900-1937: A Reexamination. *The*

Business History Review, 56(3), 335-357. Retrieved from

<http://www.jstor.org.ezproxy.rit.edu/stable/3114628>

Pandian, S. (2018). Impact of fourth industrial revolution in human resource management.

International Journal for Research Trends and Innovation, 59-61. Retrieved from

<http://www.ijrti.org/papers/IJRTI1802010.pdf>

Pollitt, D. (2005). *Outsourcing and HR*. Emerald Publishing Limited. Retrieved from

<https://ebookcentral.proquest.com/lib/rit/reader.action?docID=233897>

Purang, P. (2008). Dimensions of HRD Climate Enhancing Organisational Commitment in

Indian Organisations. *Indian Journal of Industrial Relations*, 43(4), 528-546.

Retrieved from <http://www.jstor.org.ezproxy.rit.edu/stable/27768154>

Rahman, M., Mordi, C., & Nwagbara, U. (2018). Factors influencing E-HRM

implementation in government organisations. *Journal of Enterprise Information*

Management, 31(2), 247-275. doi:[http://dx.doi.org.ezproxy.rit.edu/10.1108/JEIM-05-](http://dx.doi.org.ezproxy.rit.edu/10.1108/JEIM-05-2017-0066)

[2017-0066](http://dx.doi.org.ezproxy.rit.edu/10.1108/JEIM-05-2017-0066)

Ruël, H.J.M. & Bondarouk, Tanya & Looise, Jan Kees. (2004). E-HRM: Innovation or

Irritation. An Explorative Empirical Study in Five Large Companies on Web-based

HRM. *Management Revue - The international Review of Management Studies*. 15.

- 10.5771/0935-9915-2004-3-364. Retrieved from
[https://www.researchgate.net/publication/5178937_E-HRM Innovation or Irritation An Explorative Empirical Study in Five Large Companies on Web-based HRM](https://www.researchgate.net/publication/5178937_E-HRM_Innovation_or_Irritation_An_Explorative_Empirical_Study_in_Five_Large_Companies_on_Web-based_HRM)
- Sharma, S. (2008). Human Resource Management-A Profession in Dilemma. *Indian Journal of Industrial Relations*, 43(3), 438-449. Retrieved from
<http://www.jstor.org.ezproxy.rit.edu/stable/27768144>
- Srivastava, K. (2000). Rethinking HR: Role of HR Professionals in a Changing Business Environment. *Indian Journal of Industrial Relations*, 35(4), 532-544. Retrieved from
<http://www.jstor.org.ezproxy.rit.edu/stable/27767684>
- Strohmeier, S., & Kabst, R. (2009). Organizational adoption of e-HRM in europe: An empirical exploration of major adoption factors. *Journal of Managerial Psychology*, 24(6), 482-501. Retrieved from
<doi:http://dx.doi.org.ezproxy.rit.edu/10.1108/02683940910974099>
- Summers, N. (2018). 4 Ways the fourth industrial revolution will change HR in East Africa. *Sage*. Retrieved from <https://www.sage.com/africa/newsroom/2018/10/4-ways-the-fourth-industrial-revolution-will-change-hr-in-east-africa>
- Tarry, A. (2018, July 7). The Role of HR in the 4th Industrial Revolution. UK. Retrieved from <https://www.thehrdirector.com/features/revolution/role-hr-industrial-revolution/>
- Teachout, R. S. (2018). SHRM CEO Says HR in "4th Industrial Revolution". XperthR. Retrieved from <https://www.xperthr.com/news/shrm-ceo-says-hr-in-4th-industrial-revolution/33349/>
- Tubey, R., Rotich, K. J., & Kurgat, A. (2015). History, Evolution and Development of Human Resource Management: A Contemporary Perspective. *European Journal of Business and Management*, VII(9), 139-148. Retrieved from
<http://www.eajournals.org/wp-content/uploads/History-Evolution-and-Development-of-Human-Resource-Management-A-Contemporary-Perspective.pdf>
- Wallo A., Kock H. (2018). "HR outsourcing in small and medium-sized enterprises: Exploring the role of human resource intermediaries", *Personnel Review*, Vol. 47

Issue: 5, pp.1003-1018. Retrieved from <https://doi-org.ezproxy.rit.edu/10.1108/PR-03-2017-0066>

Yu, H. (2009). Human Resource Information Systems and E-HR Systems. In Tsui A. & Lai K. (Eds.), *Professional Practices of Human Resource Management in Hong Kong: Linking HRM to Organizational Success* (pp. 219-248). Aberdeen, Hong Kong: Hong Kong University Press. Retrieved from <http://www.jstor.org.ezproxy.rit.edu/stable/j.ctt1xw9g2.17>

Appendix

Appendix 1

Human Resource Technology- Survey

This is a survey created by Eris Cunaku, a senior student at RIT Kosovo, who is currently working on his thesis on the topic: Human Resource Technology and the Changing Role of HR Managers. This data will serve as primary data in understanding the changing role of HR managers and their importance within an organization, from an employee's perspective.

* Required

1. How old are you? *

Mark only one oval.

- Below 18 years old
- 18-25 years old
- 25-35 years old
- 35-45 years old
- Above 45 years old

2. What is your gender?

Mark only one oval.

- Female
- Male
- Prefer not to say

3. Where are you from?

4. How many years of work experience do you have? *

Mark only one oval.

- I have no work experience
- Less than a year
- 1-3 years
- 3-5 years
- 5-7 years
- 7-10 years
- More than 10 years

5. Did any of the companies you worked for have an Human Resource Manager? *

Mark only one oval.

- All of them had an HR Manager
- Most of them had an HR Manager
- Some of them had an HR Manager
- None of them had an HR Manager
- Other: _____

6. How many employees does the company you work for approximately have? *

7. How would you rate the importance of having an HR manager in a company? *

Mark only one oval.

	1	2	3	4	5	
Not at all important:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very important:

8. How would you rate your knowledge on what an HR Manager does? *

Mark only one oval.

- Poor
- Fair
- Satisfactory
- Very good
- Excellent

9. On a scale of 1-5, how would you rate the importance of these HR tasks (1 being lowest and 5 being highest importance) *

Mark only one oval per row.

	1	2	3	4	5
Recruitment and hiring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employee talent management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resolve issues between management and employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coordinate and supervise the work of employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct disciplinary procedures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Come up with training & development opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Represent the employee's best interest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Performing job evaluations and job analyses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establish compensation levels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establish benefits (health care, retirement plans, bonuses etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. How do you usually look for jobs? *

Check all that apply.

- Job websites
- A company's website
- Newspaper
- Social Media
- Recruitment agency
- Referral from friends/family

Appendix 2

Questions for HR Managers:

1. How long have you working as an HR Manager?
2. What got you into HR?
3. What is your role as an HR manager? What is important to you as an HR manager?
4. What do you enjoy most about being an HR?
5. What is the general perception of HR managers in your country?
6. Are you familiar with any HR technologies?
7. If yes, what do you use them for? Recruiting?
8. How do you think the role of HR managers has changed over the years?
9. Do you think technology has had an impact in this change? How?
10. How has technology helped HR managers? How has it hindered their jobs?

Appendix 3

Questions for Managers or CEOs:

1. How many employees do you have?
2. Tell us more about your employees? Age? Level of education?
3. What do you understand by HRM?
4. Do you have an HR position available at your firm?
5. What do you believe the role of an HR manager is?
6. Do you think having an HR manager is important? Why?
7. Are you familiar with any HR technologies?
8. How do you do recruiting?
9. Who deals with administrative tasks?
10. What happens when there is an issue within the company between employees?