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**Human Resource Management in the IT field**  
(bakalářská práce)

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*Prohlašuji, že jsem tuto bakalářskou práci vypracoval samostatně a uvedl úplný seznam citované a použité literatury.*

*V Olomouci dne*

## Acronyms

ICT – Information and Communication Technologies

MBTI – Mayers-Briggs Type Indicator

HR – Human Resources

HRM – Human Resource Management

IT – Information Technologies

IS – Information Systems

INTJ – Mayers-Briggs Type Indicator group, that brings together (I) Introvert, (N) Intuition, (T) Thinking and (J) Judging.

ISTJ - Mayers-Briggs Type Indicator group, that brings together (I) Introvert, (S) Sensing, (T) Thinking and (J) Judging.



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## Chapter 1: Introduction

This thesis tries to capture the differences in human resource management, when it deals with employees from the Information and Communication Technologies field. The focus of this thesis is to summarize what kind of specialized approach is needed in different areas of Human Resource Management practice. These areas that this paper focuses on include benefits, communication, motivation, career and personal development, and hiring of new employees. Important facts are also listed, that are aimed towards prevention of errors in management of Information Technologies employees, that could lead to unmotivated or unsatisfied employee, even to turnovers and overall bad performance. This paper also concentrates on steps that should be avoided when dealing with Information Technologies employees. These steps can be viewed as common practice when dealing with non-IT employees, but if they are applied to IT employees, they can produce zero or even negative effects.

The characteristics of IT personnel are expressed through the MBTI typology, that deals with basic personality traits and uses their combination and analysis to provide a shared view of personnel. This typology is used to predict reactions of different personalities to different situations.

This thesis uses various sources to provide background and foundation, that the main claims of this thesis are based upon. These sources are internet, public library and interviews with Human Resource Management experts. Internet sources used are [www.jstor.org](http://www.jstor.org), [www.google.com](http://www.google.com) and [www.sciencedirect.com](http://www.sciencedirect.com). Hard cover books used in this thesis are listed in the bibliography.

## Chapter 2: Introduction to Human Resource Management

Human resource management is a discipline in the field of social company relations. It concentrates on the relations between employees and employers, it governs the benefits in the company, it controls the hiring and removal of employees, and much more. It has grown into great importance over the past few decades and any company that doesn't use the services of human resource management is risking a cumulative backfire that affects almost every aspect of the company. What would happen in the companies without the HR department?

For example a Shipping and Receiving Clerk would have been hired at \$35,000 per year instead of the local market rate of about \$23,000 per year. Think this only costs the company an extra \$12,000 a year? Think again. Payroll taxes, workers comp insurance rate, bonus and pay raise calculations, increased liability on the books for time off not taken, morale/productivity of other employees...the list goes on. A company would have classified all employees as exempt in order to save money. Can you say class action lawsuit? Countless hours and dollars would have been lost by a small, struggling company by inviting candidates with "resumes that look good" to interviews without phone screening them first. Further, there would have been no employment brand to speak of as each recruitment would have been directed by a different department.<sup>1</sup>

The Human Resources Management (HRM) function includes a variety of activities, and key among them is deciding what staffing needs you have and whether to use independent contractors or hire employees to fill these needs, recruiting and training the best employees, ensuring they are high performers, dealing with performance issues, and ensuring your personnel and management practices conform to various regulations.

Coupled with this, the decisions regarding employee benefits, personal approaches or salary create an important and diverse system that every company should have in some level.

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<sup>1</sup> *A World Without HR* [online]. 2008 , April 10. 2008 [cit. 2009-06-05]. Dostupný z WWW: <<http://hrwench.blogspot.com/2008/04/world-without-hr.html>>.



Small-scale businesses usually have to manage these activities without the help of a separate department. Note that some people distinguish a difference between HRM (a major management activity) and HRD (Human Resource Development, a profession).

<sup>2</sup>The HRM function and HRD profession have undergone tremendous change over the past 20-30 years. Many years ago, large organizations looked to the "Personnel Department," mostly to manage the paperwork around hiring and paying people. More recently, organizations consider the "HR Department" as playing a major role in staffing, training and helping to manage people so that people and the organization are performing at maximum capability in a highly fulfilling manner.

As any other industry, human resource management is evolving. What is more important is that HR needs to be up-to-date with the latest news and development from many branches of the industry and needs to incorporate these into a working system. Over the years the alignment of HR branch shifted from basic paperwork to be more close to administrative and personnel function. Where HR started, in the handling of salaries and new employees, it did not stop there, nor did it abandon this function. HR expanded into a new role inside the companies. This role elevates it into a status where it is an integral part of the company.

What exactly is this new role of human resource management? As successful companies adapt more and more to the challenges the market faces them with, they become more adaptable, resilient, quick to change direction, and customer-centred<sup>3</sup>. Human resource management must reflect these changes upon itself as well. It is a kind of a symbiosis, where one part fuels the other, but if the other changes, the other one must as well, to continue their joint function. In this situation, the human resource specialist acts as a change mentor. He is someone who is responsible for the changes, but at the same time, he is responsible for the standard area of his expertise. This includes employee benefits, paperwork, salaries and wages, and more. Depending on the size of the organization, the HR manager has responsibility for all of the functions that deal with the needs and activities of the organization's people<sup>4</sup>.

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2 MCNAMARA, Carter. *Human Resource Management* [online]. c1997-2009 , 2009 [cit. 2009-06-05]. Dostupný z WWW: <[http://managementhelp.org/hr\\_mgmnt/hr\\_mgmnt.htm](http://managementhelp.org/hr_mgmnt/hr_mgmnt.htm)>.

3 MCNAMARA, Carter. *Human Resource Management* [online]. c1997-2009 , 2009 [cit. 2009-06-05]. Dostupný z WWW: <[http://managementhelp.org/hr\\_mgmnt/hr\\_mgmnt.htm](http://managementhelp.org/hr_mgmnt/hr_mgmnt.htm)>.

4 HEATHFIELD, Susan M.. *What Does a Human Resources Manager, Generalist, or Director Do?* [online]. c2009 , 2009 [cit. 2009-06-04]. Dostupný z WWW: <[http://humanresources.about.com/od/jobdescriptions/f/hr\\_job\\_mgr.htm](http://humanresources.about.com/od/jobdescriptions/f/hr_job_mgr.htm)>.

The list of areas of HR responsibilities can be summarized into the following<sup>5</sup>:

Employee Relations

Salary and Benefits

Communication

Hiring

Training

Coaching

Performance Management

Team Building

Leadership

Let us now move to the second part of this introduction. As you have probably guessed from its name, human resource management deals with the human side of the employee. The employee is something more for the HR department than just a “cog” in the corporate machine (as it should be for anyone involved in the company, whether it is the management or employees themselves). HR deals with the employee's needs, rights, duties and the way the employee is treated. The second part of this introduction deals with Information Technologies. IT have become a necessary part of our daily lives and they deal with inanimate things and machines. You might think there is nothing “human” about programming, hardware and computers, but the fact is these tasks in this field are still performed by human beings and must be looked upon as such.

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<sup>5</sup> MCNAMARA, Carter. *Human Resource Management* [online]. c1997-2009 , 2009 [cit. 2009-06-05]. Dostupný z WWW: <[http://managementhelp.org/hr\\_mgmnt/hr\\_mgmnt.htm](http://managementhelp.org/hr_mgmnt/hr_mgmnt.htm)>.

## **Chapter 3: Introduction to Information and Communication Technologies**

Our civilization is based on technological advance, from the invention of the wheel to the invention of space flight; we have come a long way. We have learned that technology is similar to fire, it can be a good servant, but it can also be a harsh master.

The Information and Communications Technologies represent the basis, which our society works with. It is the creation, storage and transfer of information. This work deals with the management of employees that in turn manage this technology. The proficiency with which these employees command this technology is the basis of their and in turn the company's success.

We use the term information technology or IT to refer to an entire industry. Information technology is the use of computers and software to manage information. In some companies, this is referred to as Management Information Services (or MIS) or simply as Information Services (or IS). The information technology department of a large company would be responsible for storing information, protecting information, processing the information, transmitting the information as necessary, and later retrieving information as necessary.

It wasn't long ago that the Information Technology department might have consisted of a single Computer Operator, who might be storing data on magnetic tape, and then putting it in a box down in the basement somewhere. This is no longer the way in which information and communication technologies are handled. The information technologies have become increasingly complex and interconnected with each other and this connection between them is what makes them powerful, but also susceptible to damage as a whole system.<sup>6</sup>

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<sup>6</sup> *Information Technology - Definition and History* [online]. c2009 [cit. 2009-06-05]. Dostupný z WWW: <<http://jobsearchtech.about.com/od/careersintechnology/p/ITDefinition.htm>>.

In order to perform the complex functions required of information technology departments today, the modern Information Technology Department would use computers, servers, database management systems, and cryptography. The department would be made up of several System Administrators, Database Administrators and at least one Information Technology Manager. The group usually reports to the Chief Information Officer (CIO).

For all IT-related occupations, technical and professional certifications are growing more popular and increasingly important. IT workers must continually update and acquire new skills to remain qualified in this dynamic field. Completion of vocational training also is an asset.

Today with the expanding growth of internet, as you can see in the table<sup>7</sup>, companies cannot afford to have a destabilized or non-functioning information and communication technologies departments. The growth of this media is extensive and it is becoming more and more essential part of our daily lives.

WORLD INTERNET USAGE AND POPULATION STATISTICS						
World Regions	Population (2008 Est.)	Internet Users Dec. 31, 2000	Internet Users Latest Data	Penetration (% Population)	Users Growth 2000-2008	Users % of Table
<a href="#">Africa</a>	975,330,899	4,514,400	54,171,500	5.6 %	1,100.0 %	3.4 %
<a href="#">Asia</a>	3,780,819,792	114,304,000	657,170,816	17.4 %	474.9 %	41.2 %
<a href="#">Europe</a>	803,903,540	105,096,093	393,373,398	48.9 %	274.3 %	24.6 %
<a href="#">Middle East</a>	196,767,614	3,284,800	45,861,346	23.3 %	1,296.2 %	2.9 %
<a href="#">North America</a>	337,572,949	108,096,800	251,290,489	74.4 %	132.5 %	15.7 %
<a href="#">Latin America/Caribbean</a>	581,249,892	18,068,919	173,619,140	29.9 %	860.9 %	10.9 %
<a href="#">Oceania / Australia</a>	34,384,384	7,620,480	20,783,419	60.4 %	172.7 %	1.3 %
<b>WORLD TOTAL</b>	<b>6,710,029,070</b>	<b>360,985,492</b>	<b>1,596,270,108</b>	<b>23.8 %</b>	<b>342.2 %</b>	<b>100.0 %</b>

NOTES: (1) Internet Usage and World Population Statistics are for March 31, 2009. (2) CLICK on each world region name for detailed regional usage information. (3) Demographic (Population) numbers are based on data from the [US Census Bureau](#). (4) Internet usage information comes from data published by [Nielsen Online](#), by the [International Telecommunications Union](#), by [GfK](#), local Regulators and other reliable sources. (5) For definitions, disclaimer, and navigation help, please refer to the [Site Surfing Guide](#). (6) Information in this site may be cited, giving the due credit to [www.internetworldstats.com](#). Copyright © 2001 - 2009, Miniwatts Marketing Group. All rights reserved worldwide.

With the increased turnover, labour shortage and the costs of replacing a qualified employee, we can see that the companies must do everything in their power to retain the expert personnel it already has. It is in their own interest to provide these qualified personnel with appropriate care, to reduce their dissatisfaction with their work. These important activities are handled through Human Resources. Now let us take a look how human resources apply in information and communication technologies.

<sup>7</sup> *World Internet Usage Statistics : News and World Population Stats* [online]. 2009 , May 30, 2009 [cit. 2009-06-05]. Dostupný z WWW: <<http://www.internetworldstats.com/stats.htm>>.

## Chapter 4: Human Resource Management in IT

HRM in its basic form can concentrate on almost any working profession to a great effect. However, there are professions that do not appear to benefit from the basic and often relied-upon HRM practices, and can even be hindered by it. The difference is of course in the essence HRM deals with, and that is the human, the employee. Since HRM is developed around the employee, the approach of HRM to various working places can be different in many ways. And it should! HRM is not about applying one common template to everyone. It is about a personalized and concentrated approach.

Note: In this paper, the term template is used to describe a set of standard rules and regulations that the HR department applies to a single individual or a group of employees.

Let us look at an example of this template and its application by the HR department. The department decided there are two groups of employees that need further motivation. This motivation will result in increased job satisfaction and most important, job performance. Group A consists of accountants and group B consists of IT specialists. Without knowing the differences that are between these two groups, the HR department would design one template. This template would consist of changes in various areas, that are used to increase motivation of the employees. This specific template would concentrate on increase in salary and development of the employees career. The increase in salary is mapped over the next 2 years and its goal is to increase the employees' salaries by 15 %. The career development part of this plan promises promotion and all the accompanying benefits within 3 years.

This template will get applied to both groups A and B. What will be the results? Group A will show the intended increase in motivation, however group B will not. IT specialists will react in a different way. The proposed ways of motivation are not applicable to IT specialists. They require a different approach.

This is where the HR department made their mistake. They assumed that one template will be sufficient to motivate both groups and that accountants and IT specialist have the same drives and goals in their career. This mistake would cause the company to waste resources and some of the IT employees might even consider leaving the company.

If the HR department is familiar with the specialized approaches IT specialists need, it can

create a specialized template that is tailored to their needs and will have the best results on both sides. Of course if we concentrate HRM on a group of people that share the same job, working place and expertise, we can safely assume that the template we apply should affect most of them in the same way. There will always be deviations, but those are more manageable if fewer numbers than if that was the case of whole department.

If we sum up what has been mentioned before, we get a template that gets applied to a working group. However, it should be mentioned that each group has the need for its own “personal“ template and they are not interchangeable.

There is an unquestionable difference between any work group template and the HRM template for the IT work group. The difference is not only in the approach to the employees, but also in the treatment in the areas of benefits, in the approach to co-workers and customers and in the reaction to changes in the company. The areas in question are further analysed in Chapter 6: True Character of IT Employees on page 12.

The IT specialists are “alienated” a bit from the usual employee, whether the other employee is an accountant, a manager, a janitor or a secretary. The role, which HRM must take in this situation, is to recognize the differences and create the conditions that apply to these parameters.

What you ask makes IT specialists so different and special, when compared to other employees? This will be explained in the following chapters. Please note that this is a characteristic that tries to piece together traits that IT specialists share. It is by no means a general description of every employee that works with Information or Communication Technologies! Every employee, every human is unique and must be treated as such.

What kind of employee the IT specialist really is? The next 2 chapters summarize the evolution and characteristics of the IT employee.

## **Chapter 5: Evolution of the IT employee**

This section tries to summarize the common views of IT specialists that have developed in the last 20 years and the IT specialist that has evolved and is needed today. The way IT technologies are perceived by the general public is very narrow. This view is similar to a view of a city from a great distance. We know what it is for and how it roughly works, but if asked about the details, we do not know. The definition of IT technologies is a list of tasks that fall into the computer category. This list includes, but is not limited to: programming, computer networks administration, engineering software and hardware, database design and administration.

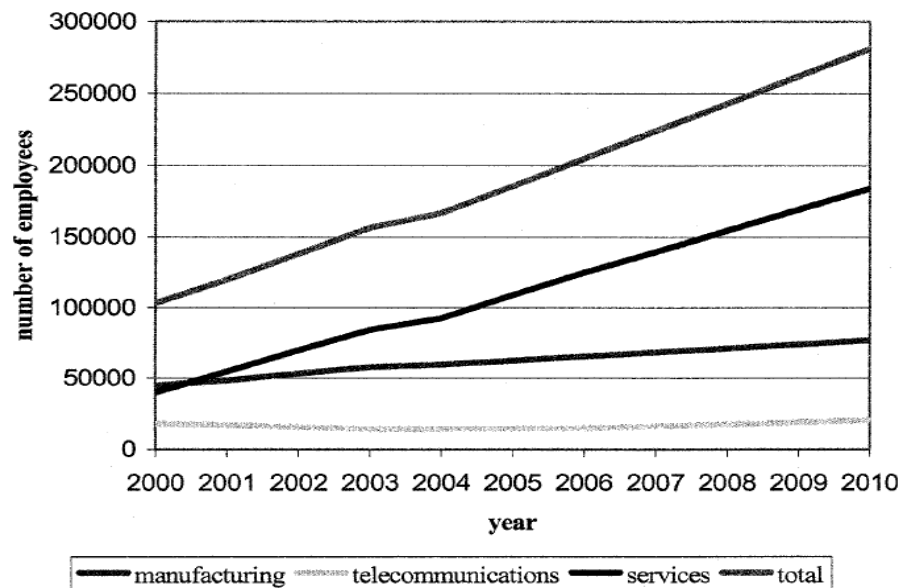
The “old” IT specialist was a different variety of an accountant, with the difference only in the tools he used. It was not a work that had contact with the customer, nor was it desired. The relations inside the company infrastructure involved only minimal contact. The higher positions had no direct contact with the lower ones and vice versa.

In recent years, the character of the IT workplace has changed. The thing IT is associated with, programming or developing complex software, is slowly being pushed aside by outsourcing and new demands for the IT specialists develop. As the “hard” skills of these specialists are being pushed aside, they are being replaced by “soft” skills. These soft skills include communication skills and basic managerial skills.

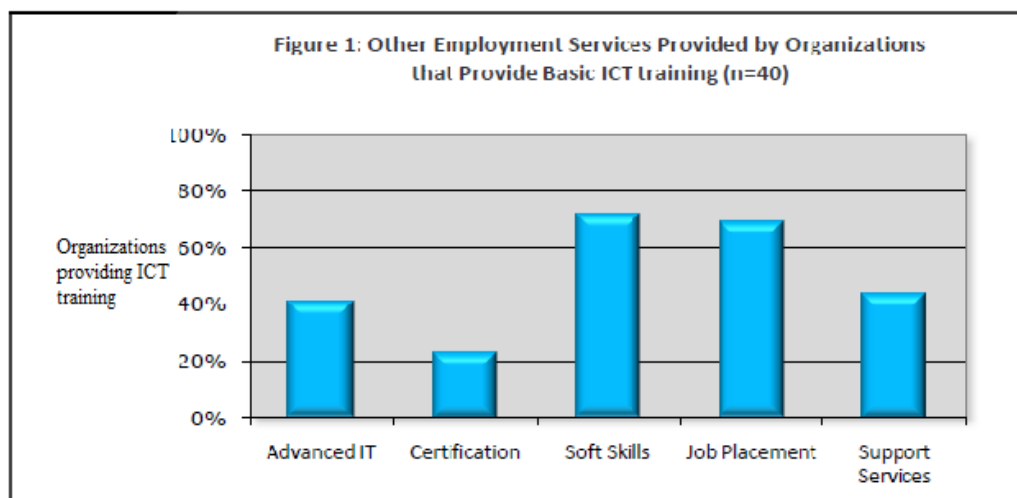
Due to these changes in perception of and demand on IT specialists, the recent trend development in the world is to include soft skills as an integral part of the job profile of the IT specialists.

In the graph below, we see a steady increase of employees in the ICT sector that are to be allocated to the services in Finland. This means it is expected more and more that IT specialists will be in increased contact with the customer and other employees.

Graph<sup>8</sup>



The next graph shows how soft skills are becoming an integral part of ICT training in the USA. We see that organizations are most likely to supplement basic ICT training with soft skills (72%) and job placement services (69%) and less likely to provide hard skills training like Advanced IT (40%). Graph<sup>9</sup>



8 LEPPIMÄKI, Sami, MERISTÖ, Tarja. FUTURE SKILLS IN THE ICT INDUSTRY: QUALITATIVE AND QUANTITATIVE EXAMINATION. *The information society: emerging landscapes* [online]. 2006 [cit. 2009-06-06], s. 243-252.

9 SULLIVAN, Joe, et al. ICT training and employability: Integrated service delivery in United States workforce development networks. *Center for Internet Studies Working Paper Series* [online]. 2007 [cit. 2009-06-05], s. 1-17.



The perception of and demands on IT specialists have changed and these changes span the whole world. The graphs provided show the shift towards the more “human” side, the soft skills.

This spawned the next-generation type of IT specialist, the one that is needed today, because of the change the IT industry started to play in the everyday cycle of the companies.

So who exactly is the IT specialist for the 21<sup>st</sup> century? What skill set separates him from the old ones? That he is a professional in his field is a fact. What about the other skills? Besides being a professional, he is also able to communicate with other employees and with customers. He is also able to grasp the management and marketing plans of the company and adapt his work to them. Does this seem like a lot? Of course it is! That is why the new and improved IT specialists are so demanded and so rare. When the companies create this type of IT specialist, they don't want to lose him, because of the huge costs invested and the huge cost replacing him.

Due to the outsourcing of programming and other tasks, the IT specialist today is driven to become more of a manager-type person. The traditional parts of work of the IT specialist, like programming and database work and similar tasks are being outsourced to countries like India. This leaves today the IT personnel with different challenges. The contact with the customer is more abundant, the relations in the workplace are wider, and the need for soft and manager skills is more and more apparent and needed.

To summarise this chapter, the challenges IT employees face today are increased communication with their co-workers, whole new area of communication with the customer and new skill requirements that are outside their normal proficiency. These skills are called soft skills and require a whole new approach to the design of an IT workplace. Soft skills requirements of the IT employees include team leadership, team building, negotiation, motivation and engaging with others. IT employees facing these new trends need help from the HR department to keep up with the new requirements and so does the HR department need to keep up with the requirements of the IT employees. The next chapter concentrates on this topic. Specialized approach is described, approach HR departments needs to take in various areas to achieve the goals of the company and the goals of the employee.

## **Chapter 6: True character of IT employee**

When we look at a comparison between an IT employee that was required 10 or 20 years ago, and the one that is required today, we see that the difference is truly great. It is today's stereotypical view of an IT employee that originates from the likeness of IT employees that were common years ago, and it is precisely this, that should be remade into a new fresh image that the IT personnel are today. This old stereotypical view paints the picture of an IT employee as a "nerd", with an introvert personality that is interested only in computers. Their abilities with computers were considered something "alien", with one of the main reasons being that no one had even the slightest computer ability. This is no longer true today, because basic computer literacy is very common. It managed to survive thanks to popularization in the media, including the Internet.

Today's IT personnel must be viewed as a valuable human resource (which is even truer, because the demand for employees with computer education is steadily increasing).

The way IT personnel need to be managed is very different from ordinary workplaces. However these differences can be controlled and active approach on all sides (the IT specialists, the HR department and the management) can eliminate most of them, making the employee even more valuable part of the company.

The following aspects are to be considered by the employer of IT specialists as very important, because wrong approach to them can be a source of discomfort, dissatisfaction, turnovers or even reasons to leave the company:

**Salary**

**Motivation**

**Communication within and outside the company**

**Career and personal development**

**Hiring of new employees**

Let's take these characteristics one by one.

**Salary** is the reason why most of people have jobs. It enables them to pay bills, buy the things they need and the things they want. It also works as one of the pillars of our economy and that is income. As a life necessity, salary can be a motivating aspect for many employees. Due to specialization of the work of IT personnel, in most cases their salary is beyond the average salary of employees in that country or state or region. The IT specialists show a different reaction to salary, one that is unexpected and can cause surprise when the IT specialist decides to leave his working place for a different one. This new position might even have a slightly lower salary! Through research made by E.R. McLean, S.J. Smits and J.R. Tanner, we see that salary is not the driving and motivating force behind IT specialists. This makes salary a stimulating aspect, but in the long term, it is not a motivating one. The conclusion of this research is that salary in the IT field is no longer a motivation aspect; it is a hygiene factor (Hygiene factors are job factors that can cause dissatisfaction if missing but do not necessarily motivate employees if increased<sup>10</sup>). The result could be summarized this way:

1. The present salary level is related significantly to the level of degree, time since graduation, and time with current employer.
2. At the time of the first follow-up study, shortly after graduation, there is a significant relationship between salary importance and career outlook.
3. However, when employment in US reaches nearly four years (46 months), the importance of salary is found to be no longer significant.

**Motivation** – Motivation is a very important topic. Three of the prominent theories on motivation are from Abraham Maslow, Fredrick Herzberg, and Hackman-Oldman. As you read in the paragraph above, salary is no longer motivating factor in IT specialist's employment. What is motivating for IT personnel then? Thanks to research conducted by Myers, we know that IT and non-IT have significant differences between needs. Further more, Couger and Zawacki, applying Maslow's theory, showed that a person develops job

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<sup>10</sup> HERZBERG, Frederick. One More Time: How Do You Motivate Employees?. *Harvard Business Review*. 1987, no. 87507, s. 1-15.

satisfaction by comparing his or her situation with those of others in the same social group. Using the Hackman-Oldham model, they surveyed the job perceptions of more than 6000 people from different professional areas and compared the data processors to the general public. They found that programmers found their work less meaningful and rated their jobs less favourably than other professionals. Their need to interact with others was almost insignificant. However, IT professionals displayed very high growth needs and were concerned about learning new technologies.

The list of motivational aspects that govern job satisfaction and motivation of IT employees follows<sup>11</sup>:

*Task/Goal clarity* - One of the major reasons teams fail is because of muddy goals and a lack of clear direction. A well written goal is, in essence, an unmistakable statement describing a desired outcome. In his book "Seven Habits of Highly Effective People, Vol. 3"<sup>12</sup>, Stephen Covey tells us that SMART goals are: Specific, Measurable, Attainable, Relevant and Timely. Goals do not exist in isolation. The intention of work team goals is to support and accomplish the vision and purpose (mission) of the team. In essence, goals cut the purpose statement of the team down into doable, specific, measurable parts. More often than not, goals address barriers that must be overcome in order to achieve the team's vision.

*Participation* – Participation is often overlooked by HR department. Even though it might seem a little off topic, thanks to the introvert personality of IT specialists, it is also one of the important factors. Participation goes together with the task significance. This allows the IT specialists to be aware of the impact their work has on other people and this way, their motivation increases.

*Feedback* – One of the basic tools when dealing with employees, feedback can have great impact on overall job performance.

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11 GAMBILL, Stanley E., CLARK, W. Jeff, WILKES, Ronald B. Toward a holistic model of task design for IS professionals. *Information & Management* [online]. 2000, no. 37 [cit. 2009-06-06], s. 217-228. Dostupný z WWW: <[www.sciencedirect.com](http://www.sciencedirect.com)>.

12 COVEY, Stephen R. *The Seven Habits of Highly Effective People*. 5th edition. [s.l.] : Free Press, 1989. 189 s. ISBN 0743269519.

*Job complexity* - Job complexity plays a role in the nature of job performance over time. Greater complexity necessitates the use of cognitive ability over time to adjust to changing tasks and to learn new skills<sup>13</sup>. This coupled with the self-improving nature of IT employees, encourages them to produce better results.

*Task significance* - Task significance is supposed to cultivate perceived social impact by making the fact that others are depending on employees' efforts. Beyond merely experiencing their jobs as meaningful, task significance enables employees to make a psychological link between their actions and potential positive outcomes for others. The awareness that one can act to benefit others signifies judgments of expectancy (effort will lead to effective performance) and instrumentality (effective performance will benefit others), motivating employees to invest additional time and energy in their work to achieve these outcomes.<sup>14</sup>

*Autonomy* - Enhanced autonomy increases ownership of problems but also that employees recognize a wider range of skills and knowledge as important for their roles. Increased control over the work environment motivates workers to try out and master new tasks, which is consistent with work design that has demonstrated the motivational benefits of work autonomy. Given the autonomy, individuals are likely to integrate more tasks into the focal role.<sup>15</sup>

*Procedural justice* – Focuses employee's attention on how managerial decisions are being made. It's concern is the process itself.

*Distributive justice* -Addresses employee's concerns about the fairness of managerial decisions relative to the distribution of outcomes such as pay and promotion.<sup>16</sup>

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13 STURMAN, Michael C., CASHEN, Luke H., CHERAMIE, Robin A. The Impact of Job Complexity and Performance Measurement on the Temporal Consistency, Stability, and Test-Retest Reliability of Employee Job Performance Ratings. *Journal of Applied Psychology* [online]. 2000, vol. 97, no. 2 [cit. 2009-06-06], s. 269-283.

14 GRANT, Adam M. The Significance of Task Significance: Job Performance Effects, Relational Mechanisms, and Boundary Conditions. *Journal of Applied Psychology* [online]. 2008, vol. 93, no. 1 [cit. 2009-06-06].

15 MORGESON, Frederick P., DELANEY-KLINGER, Kelly, HEMINGWAY, Monica A. The Importance of Job Autonomy, Cognitive Ability, and Job-Related Skill for Predicting Role Breadth and Job Performance. *Journal of Applied Psychology* [online]. 2005, vol. 90, no. 2 [cit. 2009-06-03], s. 399-406.

16 DAILEY, Robert C., KIRK, Delaney J. Distributive and Procedural Justice as Antecedents of Job Dissatisfaction and Intent to Turnover. *Human Relations* [online]. 1992, vol. 45, no. 3 [cit. 2009-06-06], s. 305-317.

*Individual differences*- As mentioned before, HR should ultimately treat the employee as an individual and any mass application of management in the areas mentioned before might lead to an unwanted reaction from the employee's side. Individuality plays a major role in management and IT specialists are very sensitive when they are not treated like an individual, with individualized approach and understanding.

As an example of implementation of these motivational techniques, imagine two different IT employees, John and Mark. Both are given the same task. This task is to increase the performance of the company computer network by 25%. That is one of the techniques, Task Clarity. How about the others? Feedback is very important in communication with the employees. The best way to apply feedback is at least times a year in an informal way and at least once a year through formal evaluation. John has been given feedback on his work every two months and he was able to apply it to his work, thereby improving it. Mark on the other hand, received only his formal feedback after one year of work and found out he wasted three months by a wrong approach. Task significance is the next step. John has been informed by his superiors and co-workers, how will his work on the network improve their own jobs and lighten their load. This will certainly motivate John, because he knows he's doing something that affects others in a good way. Mark only knows there's a problem with the network and that he's needed to make it work. He will do the job, but he will not make an extra effort John did and the results of their work can be very different.

***Communication*** is a much-discussed part of the IT personnel characteristics. It is one of the main areas of soft skills, where they need improvement and where it is the most “visible”. More on communication will be mentioned in Chapter 8: Soft skills inside and outside the company. To sum it up in a paragraph, IT specialists are becoming more and more involved in communication, be it communication within the company with fellow employees, or outside the company, with the customers! The approach to the customer is one of the most important traits when it comes to the reputation of the company. A bad approach to the customer can leave a bad impression or even a bad first impression, and this can cause great damage in business deals that could have been, but are not.

**Career and personal development** is an often overlooked, but nevertheless at least as important, as any other aspect of managing IT personnel. The opportunity to develop in a working process has become one of the main driving forces that decide whether a possible employee accepts the offered job or not. We can say that this goes double for IT personnel. The opportunity to develop their own abilities in the field is a great motivating thing and their acquired certificates and diplomas most of the time mean more than an increased salary, Christmas bonus, even the company car or any of the more traditional stimulating and motivating approaches. IT business expands, evolves and changes more than any other. What is true or top-of-the-line today will be considered ancient and useless ten or twelve months later. The ability and by extension the opportunity to keep up with the current trends is valued very highly among IT personnel, because what I think works for IT business more than any other is that if you stay behind, you are going to be left behind. Research<sup>17</sup> done by Magid Igbaria and Conrad Shayo shows that the average “life-span” of career-place in IT field can be around 30 years. This coupled with great influence age has on the hiring process, can have a big impact on the IT specialist’s decision on choosing new work place or staying in the current one.

**Hiring** new employees is always a problem for the company when it comes to qualified employees. This of course means that hiring a new employee for a new job position or replacing a current one will cost a lot of money and resources. The change of an employee in a qualified position can cause the company up to 150 % of their current salary!<sup>18</sup> You can understand that changing employees or hiring new ones can be very taxing on the company and you can see the reluctance that comes with it.

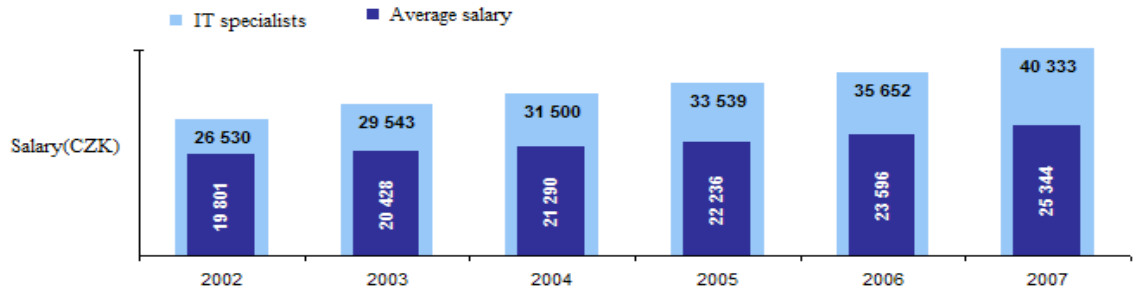
However sometimes the change is absolutely necessary and this will result in an attempt by the company to hire a new employee. What can the company do to get the best candidate? What can it do to keep the candidate? The answers to these two questions have changed very rapidly and very much in content.

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<sup>17</sup> IGBARIA , Magid, SHAYO , Conrad. *Strategies for Managing IS/IT Personnel*. Amanda Appicello; Mehdi Khosrow-Pour. 1st edition. UK : Idea Group Publishing , 2004. 336 s. ISBN 1591402727.

<sup>18</sup> REH, John F.. *What Good People Really Cost* [online]. c2009 , 1.1.2009 [cit. 2009-06-05]. Dostupný z WWW: <<http://management.about.com/cs/people/a/WhatPeopleCost.htm>>.

As I've mentioned before, salary is no longer the driving and motivating force behind their career. The prospect of more than average salary is not motivating, because their salary is above the average salary of other employees and has been steadily increasing<sup>19</sup>.



Other one-time bonuses like the Christmas bonus, company car, company phone or the food stamps might be stimulating. However stimulation is not what companies are looking for in the long run and it will not persuade the IT employees to stay loyal. Companies need to motivate their employees instead of stimulating them.

What has changed in the demand, that can be more valuable than these things? The answer is hidden in the very nature of IT specialists and in the development of the IT business. I have mentioned in the career and personal development sections that the IT business is expanding and changing more rapidly than any other business we have. This is the answer to the previous question. The rapid evolution of IT business causes a constant demand on the market and constant pressure on the IT specialists. The opportunity to expand one's abilities is very valued by IT specialists and can make or break the decision when it comes to staying in or changing one's career.

Let's look at an example. As you may know, the software equipment is a very important part of a computer. Let's imagine an employee salary management program called ESM 1. It has been developed one year ago and since then it has been used by many companies, it has spread mostly all over the globe and 80% of companies use it on their computers. Now let's imagine two IT specialists, Jack and Jill. They both went up the hill to the same university, achieved the same grades and after school they were hired as IT specialists by similar companies. They both worked with ESM 1 in university and are familiar with it. To make things easier let's say that Jack has a slightly higher salary than Jill, they have the same perks,

<sup>19</sup> *Mzdy IT odborníků v České republice* [online]. c2009 , 1.6.2009 [cit. 2009-06-06]. Dostupný z WWW: <[http://www.czso.cz/csu/redakce.nsf/i/mzdy\\_it\\_odborniku\\_v\\_ceske\\_republice](http://www.czso.cz/csu/redakce.nsf/i/mzdy_it_odborniku_v_ceske_republice)>.



but with one difference. Jack's company decided that personal development is not an important part of Jack's career plan. His career plan is solid, with promotions in mind, but there is no space for Jack's personal development. Jill's company decided that to make up for Jill's lower salary, they will send Jill to seminars, training and to attain certificates that are available. Now let's see what happens in a year. A new version of this program is created, it is called ESM 2 and it is much better than ESM 1. All the companies will switch to it, because it means more money in their pockets. Jill has been attending seminars about ESM 2 and even got to try it out a couple of weeks before it was released, her company can make a smooth transition to ESM 2 and thanks to this, Jill might even get a raise. Jack on the other hand, after much harder and costlier transition to ESM 2 in his company, will recognize that when the ESM 3 comes, he will have trouble with it again. So he decides to look for a different job, one that will provide him the opportunity to develop himself along the IT business. This will most likely cost the company a lot of money and resources, since Jack is a qualified employee and has worked in the company for a year.

This example was using software, which is one of the slower developing parts of the IT industry. More common parts like the ones we use every day, the hardware, develop even faster and when employers deny the IT specialists access to them and access to information about them, they in turn cripple their own ability to compete in the market and to create profit.

You can see from the example above, that what companies offer in their search for qualified employees has become very important. We can see that not only it decides whether the employee chooses the said company, it has also a great impact on the employee's likelihood of keeping the job.

Please keep in mind the previous information, as we move to the less tangible, but nonetheless important side of IT specialists and that is the very psyche of IT specialists, which makes them stand out in the crowd of other job specialists.

More uncommon aspects of IT personnel are following:

### ***Self-awareness***

### ***Attitude toward and relations with other employees***

The self-awareness is something that I think is unique for IT personnel. Because of the course which the IT industry and business has taken society shaped IT personnel into what they are

today. We can say that they are extremely aware of their abilities, their uniqueness, and the dependence of the whole company on them and of the demand that the market has. They are constantly bombarded by information that IT specialists are rare and important. And indeed they are! However in some cases, this has evolved into an unhealthy attitude. It is easy to get lost in the glitz and glamour. When you know you are vital to the company's success and that there are very little opportunities to replace you, you can easily forget that everyone in the company contributes roughly equally to its development and success. This can further lead to problems in communication and workplace relationships.

Relations with other employees are one of the aspects of communication that cause a lot of confusion with IT personnel and other personnel in the company. This will be further analyzed in Chapter 8: Soft skills inside and outside the company. What needs to be mentioned though, is that these communications differences, errors, and assumptions are not one-sided. The IT personnel do not cause the problems only by themselves! All the other employees must be trained in communicating with various people in their company as well.

Lets summarize facts from this chapter. True character of IT employees manifests itself through a number of areas. These areas include salary, where we have established, that salary is not the motivating aspect for the IT specialists and attempts to improve work performance and job satisfaction through the increase of salary would result in zero increase in said characteristics and waste of company resources. Next area is motivation. Motivation strategies for IT specialists differ in preferences this type of employees has. IT specialists are motivated by the opportunity to enhance their knowledge of the trade, task clarity, feedback, job complexity, task significance and autonomy. IT specialists are also unmotivated by promotion prospects and regular benefits, for example company car or company phone. They are however motivated by having access to state-of-the-art technologies. Another area of difference is the area of communication. It is becoming more and more required skill of the IT specialists to be able to communicate with other employees and the customer. It is a part of the soft skills requirements that have developed in the IT business today. Career and personal development is one the next important areas for IT specialists. As mentioned before, the opportunity to increase one's knowledge of the trade if valued very highly by IT specialists. One of the main reasons for this is the speed IT business develops with. It puts constant pressure on the IT specialist to be up-to-date with the latest technologies. Being able to keep up is valued more than promotion and if this ability is lacking, it can result in intentions to

leave the company. The area of hiring policies includes in itself all of the previous ones. Keeping the previous areas in mind, when designing new workplaces and policies for hiring new employees, is vital for the company's success with IT employees. Last area of concern includes less uncommon aspects of personality of IT employees. Due to the demand there is for IT employees and the course technology has taken, IT employees are extremely aware of their value to the company and of their uniqueness. This attitude can be easily encouraged too much, resulting in bad work performance. IT specialists need to be made aware that even though they are a very important part of the company, other employees are as important as they are. And likewise, other employees must be made aware of how important IT employees are. The next chapter deals with the obstacles that can arise when trying to apply the before mentioned policies. These obstacles originate from the personality characteristics of the IT employees and knowing about them is the first step towards successfully reaching all IT specialists.

## Chapter 7: Obstacles met in management of IT personnel

As you know now, the characteristics and the persona of an IT specialist is something unique. Information technologies have become an essential part of the company business and problems that arise from them can have an adverse effect on the whole company.

As mentioned before, the IT personnel are essential to 90% of today's businesses. And as you can see from what was mentioned in previous chapters, their management is something that needs a unique approach, because otherwise it can result in great losses or turnovers for the company.

IT personnel differ in more ways than just their salary, benefits, motivation and others. Those are just characteristics. What is also important is the awareness of the IT personnel towards themselves in the company. The tendency is to look at IT personnel as overall technical, with lesser amounts of creativity. This could not be further from the truth. It is true that most IT personnel are of a technical alignment. It is a given by the nature of their job. However from research, I have come to interesting results. IT personnel are creative, but there are some differences. The most common type of personality among IT personnel is INTJ and ISTJ (these will be mentioned in Chapter 8: Soft skills inside and outside the company). This means most of IT personnel are introverts, which respond differently to communication.

PaeDr. Jitka Jilemnická says:” IT specialists are very creative despite what most people think. The key is to get into contact with them. They are very intelligent and will recognize when an attempt at manipulation is being made, which will insult them and they will close to other stimuli. It is important to spark their interest in the topic and persuade them that they need it. Once they are convinced that they can improve themselves, they give their 100 % to it and usually succeed. They know the areas which are problematic for them; soft skills, communication, and once they acknowledge this, they are ready and willing to improve themselves.”<sup>20</sup>

It is the coupling of the managements' position on the improvement of the IT staff and the IT staff's own initiative that creates these inevitable scenarios that must be handled in the right way, otherwise the company wastes money and the IT staff might decide to leave or be replaced.

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<sup>20</sup> JILEMNICKA, Jitka. Personal interview. 16 February 2009. Prague.

The “feeling” of IT personnel – IT personnel have a unique awareness of their own abilities and their superiority in their field, and even more the dependency of everyone in the company on them. Many IT personnel feel that they should receive special treatment or special perks, ranging from not complying with the dress code to keeping certain decorum when interacting with the customer or fellow employees.

Benefits – IT personnel have completely different motivations and drives, which need to be remembered when deciding their benefits. For example, IT personnel value access to state-of-the-art technologies, opportunities to increase their own abilities and an honest approach more than benefit in the form of money.

Soft skill lack – Soft skills are something that has received a lot of praise and focus from HRM lately. And until recently, IT personnel were thought of being in no need of soft skills. However I have found that IT personnel need soft skills as much as anyone else in the company, in some cases even more than anyone else. This change can be attributed to increased involvement of IT employees and IT technologies themselves in contact with customer.

This was a short reminder of differences IT employees have. Their recognition is vital to the company and so is their successful implementation. There are certain characteristics of the IT employee's personality that affect this implementation and in the next sub-chapter, I would like to point these traits out.

## **MBTI Typology**

Now I would like to talk about the various tools for analysing the psyches of employees to achieve the best possible awareness of their abilities, reactions and nature.

IT personnel can be analyzed to a great effect with a number of theories that have been developed. One of these theories is the MBTI

MBTI is a system brought by Isabel Briggs Myers and Katharine Cook Briggs ; it is a well known type indicator.

The MBTI system works with four basic gauges. Each is bordered by an extreme personality trait and combination of these results in 16 various types of personality, that characterize an individual and his abilities to communicate and accept communication with other people, as well as his most probable reactions.

I have chosen the MBTI typology as one of the ways, to characterize the personality of the IT employee. There are many alternatives to this approach, but I feel that the MBTI is best for the IT specialists group. There are many alternatives to this approach, like the DISC theory, the MMPI theory or the LIFO theory. However I feel that the MBTI typology characterizes the IT specialists in the most comprehensive way.

MBTI, or the Myers-Briggs Type Indicator, works with a number of dimensions, which are used to create 16 basic character types. The dimensions are Extraversion (E), Introversion (I), Sensing (S), Intuition (N), Feeling (F), Thinking (T), Judging (J) and Perceiving (P). These dimensions create the 16 basic groups, which are:

ISTJ	ISFJ	INFJ	INTJ
ISTP	ISFP	INFP	INTP
ESTP	ESFP	ENFP	ENTP
ESTJ	ESFJ	ENFJ	ENTJ

These basic groups can be used to characterize workers personalities and can inform us, how the workers react to a certain situation. The reason I am not going to go further into details of all of them is because the information can be accessed in variety of books and deeper understanding of all the basic types is not essential to this work.

The most common types among the IT business are INTJ and ISTJ<sup>21</sup>. INTJ types being most suited for higher management positions and ISTJ being the “working” IT specialist.

What exactly do these types denote?

### **INTJ**

You can see the acronym has Introversion, Intuition, Thinking and Judging. This means the people with this type have a lot of confidence that is however justified, because it comes from one’s resources. They live in introspective reality, concentrating on and thinking in pure logic. They are open to ideas and new concepts and they actively seek them out. INTJ can be enormously focused on one subject with little outside awareness, which can be a good, but also very bad thing.

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<sup>21</sup> JILEMNICKA, Jitka. Personal interview. 16 February 2009. Prague.

**ISTJ**

ISTJ types, which are more common among non-management positions, have different characteristics. They are described as the “thinking” or “rational” types. This means they are logical in approach to problems; they are quick to act and very decisive. However this leaves them lacking in empathy and in human relations. They tend not to take into account the impacts of their decisions and actions. The ISTJ is very patient, persistent and reliable, having the ability to keep cool head in crisis situations. The drawbacks of this type are the inability to deal with situations concerning the F type and the randomness that arises around them. The problems with the F types, is that they have completely different drives and priorities. This can create unwanted reactions on both sides.

When dealing with IT employees, these facts must be remembered. Most of the IT employees are of Introvert personality. That means they will react in a different way to communication than Extravert types. An situation example. Two employees are engaged in a conversation about a problem one of them presented. One of them is John, the IT specialist. He is a ISTJ type. The second is David, he is a sales manager and for this situation, he is an ESFP type. His type means he is an Extravert, he focuses on Sensing, Feeling and Perceiving. He presents John with a problem he had with a customer the other day. The problem could be anything, it's nature isn't important. David as an Extravert likes to talk about problems, he needs immediate feedback and the other person's opinion. However John is not like that. John's Introvert personality commands him to stop and think about the problem very carefully, taking all possibilities into consideration. When David tells John his problem, John as usual, starts to think about it. But David is not used to this, when he doesn't receive any reaction from John, he asks again what he think or maybe just keeps talking about the problem, because that always helps him to find the solution, later he starts to think that John is not interested in his problem or maybe John doesn't like him and is ignoring him. But these conclusion couldn't be further from the truth. John is very interested in David's problem and is thinking very hard about it and constant interruptions from him keep John from being focuses. John is then surprised when David leaves, without hearing him out. What happened here was a typical clash between two extreme personality types. The bad result could have been easily avoided if John was trained in the art of recognizing and communicating with other personality types, like Introverts. The basic training is nothing hard. Everything John had to do was to say from

time to time something like “I see”, “I know what you're talking about”, “Let me think about that for moment”. This would have given David sufficient feedback and he would be patient knowing John is thinking hard about the problem.

Similar examples can be found with other personality traits. For example women are known to have the I (Intuition) and F (Feeling) personality and men the S (Sensing), P (Perceiving) one. This can create unwanted situations when the IT specialist(man) has to deal with the customer(woman). The woman can have some troubles at home or any other from an unrelated area, and she is mad. The IT employee communicating with her perceives no reason for the woman's anger and hostility and therefore starts to think the customer is mad at him for some reason or even for no reason. As you can think, this creates very hard situation for both of them and the result of this communication can be bad. Of course the second situation cannot be resolved by simply saying something like “I know you are having a hard time”, because that would be surely understood by the customer as an invasion into her privacy. Managing these situations is not easy, however it can be taught and once the IT employee is aware of this, he will be much more effective in these types of conversations, which will increase his own motivation and thereby his work performance. And as I have mentioned before, IT specialists are very keen on improving the areas where they know they lack certain abilities.

The abilities mentioned above are a part of a set of skills that are called the Soft Skills. The IT specialists' need for soft skills originated from the increased contact these specialists have with other parts of the company and the outside world represented by the customer. Next chapter summarizes these soft skills and the impact of their lack.



## **Chapter 8: Soft skills inside and outside the company**

Soft skills have become very important in the beginning of the 21<sup>st</sup> century, as one of the main reminders, that a good worker must have something more than just raw skills. The skill sets required for success in the work place have changed dramatically in the past few years. Employers insist on a better-prepared workforce that is more adaptable, responsible and teachable to help meet the competitive realities of a global economy. Most employers today expect workers to demonstrate and excel in many “softer” skills<sup>22</sup>.

The opposite of soft skills, hard skills, represents the technical part of workers abilities. The term soft skills represent the more individual part in one’s education. In our life, we use all of these soft skills to a certain degree, but it is the workplace, where soft skills measure our success. The soft skills include, but are not limited to: team work, team leadership, negotiations, motivations, decision-making skills, and problem-solving skills. These skills apply differently when it comes to relations within the company and relations outside the company (with the customer). Soft skills are becoming the centre of attention of the corporations, because it is a trait unique for every employee and when universities produce job applicants with essentially the same hard skills, it is the soft skills that make the difference.

### ***Soft skills outside the company***

Face to face communication is becoming more and more important nowadays. It is due to the fact that companies want to appear human and want customers to be part of their family. This promotes personal face-to-face contact as one of the frontiers, where the company can and must keep a good profile. This has become a mandatory part of training for many employees. For example sellers, secretaries, agents and public relations related personnel. What has been missed is a development that changed the way we should look at the list of employees that require this kind of training. The IT specialists are becoming more and more involved in the contact with the customer. It is not part of their initial training to express empathy, to be patient and try to make the customer feel good about the service he has been provided.

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22 PANT, Ira, BAROUDI, Bassam. Project management education: The human skills imperative. *International Journal of Project Management* [online]. 2008, no. 26 [cit. 2009-06-05], s. 124-128. Dostupný z WWW: <[www.sciencedirect.com](http://www.sciencedirect.com)>.

This is always bad for the company business. What training and which soft skills are desirable with the IT specialists that come into contact with the customer? These IT specialists could be from the customer service centre, help desk or any other department that deals with customers.

What soft skills the employers should concentrate upon when it comes to the communications outside the company? The most important soft skills when it comes to the contact with the customer, is the ability to listen. The ability to listen does not only comprise the actual hearing. Very important part of it is the ability to show the person that is talking to you, that you are indeed listening. This is the most conflicting part when it comes to the introvert nature of IT personnel. The introvert person does not express himself much, when he receives the information, he starts thinking about it, but to the outside, it might seem that he lost interest. This would be a very unwanted situation during the contact with the customer. Other soft skills that need attention when dealing with the customer include empathy, presentation and written and spoken communication. As with any work positions, these skills should be obligatory, but thinking that there is no reason to improve or elevate them is a mistake.

### ***Soft skills inside the company***

The increasing occurrence in companies around the world is a bigger involvement of IT personnel in the internal communications within the company. This is a new development and is counter intuitive to the mark IT specialists are labelled with since the popularization of the profession. Soft skills inside the company are of course important; these skills include communication, teamwork and team building, planning, personal integrity, relationship building and negotiation skills. It is no doubt that these skills create the atmosphere that is needed to make a work environment that has a positive effect on the employees. It is inside the company, where employees are in constant contact, where the different personalities (as described in the MBTI section) can collide and create tensions and hostilities.

Soft skills are becoming more and more important to IT specialists. Their involvement in communication within the company has increased enormously and they are becoming part of the presentation of the company. Soft skills can be taught and an employee that has developed these skills is much more valued by and valuable to the company.

## Chapter 9: Recommendations

What are the recommendations of my thesis? It is apparent that the IT profession itself is too unique to be a target of the common HR practices, the templates used on other employees would not work on the IT specialists. Specialized approach is needed in the areas of salary, motivations, communication, career and personal development, hiring policies and soft skills. In the area of salary, it is becoming apparent that within the IT field, salary is becoming a hygiene factor. This means salary, when increased above the value that is typical for the specific work, does not increase the worker's motivation any more. In the area of motivation, the IT personnel show interest in areas that would not be considered as native to them. Motivation and job satisfaction is governed by these factors; Task/Goal clarity, Participation, Feedback, Job complexity, Task significance, Autonomy, Procedural justice, Distributive justice, Physical dressing, Individual differences. Career and personal development is dominated by the ability and by extension the opportunity to keep up with the current trends in technology. The communication part is becoming more and more important, because of increase in the contact with the customer and increased contact within the company. Soft skills have become a mandatory part of IT employee's abilities. Hiring policies are closely related to the motivation and salary section. As mentioned before, the important aspect of work is the ability to expand one's abilities. The ability to be able to keep up with trends in the IT field is also valued very highly. This should be listed as one of the main hiring policies when it comes to IT personnel, when long-term employment is in question. Additionally, we see that IT is becoming more business oriented. IT managers are forced to focus on bottom-line responsibility, and increasingly the IT group is a significant contributor to the development and implementation of organizational strategy.

The summary of recommendations follows:

In the area of salary, further increases after 4 years of employment have no effect on motivation and work performance.

The needed motivation for IT specialists is provided by defining the goal very clearly, providing sufficient and regular feedback on the specialist's work. Other motivating aspects include complexity of the task and also its significance. IT specialists need the challenge complex task offer and they produce much better results when they know the task they have been given has big impact on the surroundings.

Career and personal development needs to concentrate on the development of the IT specialist's abilities, because being able to keep up with the newest and modern technologies is value very highly. Omitting this aspect of IT specialist's development can lead to dissatisfaction and eventual need of new employees.

Communication skills have become very important. IT specialists are being introduced to new communication channels within and outside the company. Due to their personality and lack of training in this area, they require training that teaches them how to deal with different people and their own unique personalities.

Policies that govern hiring within the company need to be in synchronization with the above mentioned areas, to create sufficient pull in the job market and to create workplaces that maximize the output of work performance, motivation and satisfaction.

Training of soft skills that include team building, team leading, negotiation, empathy, motivation and etiquette is recommended.

In the area of benefits, recommended are opportunities to expand IT specialist's knowledge, rather than providing them with company car, company phone or food stamps. Access to state-of-the-art technology also increases job satisfaction and work performance.

Keeping the above mentioned in mind when managing IT specialists is the first step towards successful IT department in the company and a successful company in turn.

## **Chapter 10: Conclusion**

In my thesis, I tried to focus on the management of employees in the IT field from the perspective of Human Resources. The goal of my thesis was to point out the differences HR department can encounter when it tries to manage IT specialists the same way other employees are managed. My goal was to show the reader where IT specialists differ from other employees and what is the correct approach in these areas. My intention were not to include step by step analysis of said problems. HR is too specific and every company is different, with different approach, different funding and of course different employees. I think it is wrong to describe an approach how to achieve the changes proposed in this paper. Each company has their own way of doing that. I have discovered where the finish line is, but I think it is best if I leave the choice of path on the HR department of every single company. If the specialised approach is not applied to the IT employees, it can be a source of turnovers, intention to leave and general dissatisfaction of the employee. All these problems mean more expenses for the company.

IT employees need a different approach to policies governing motivation, benefits, hiring policies, career development and communication. I obtained evidence that IT specialists need unique approach in management when it comes to these areas. I think I have sufficiently analysed the problems IT employees face in these areas and recommended valid suggestions for improvement in Chapter 9: Recommendations.

Anotace

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Human Resource Management in the IT field

Joseph Ference J.D.

The topic of this thesis is the specifics of management of IT personnel. It summarizes the problems management of IT personnel can bring and the impact on the company as a whole this can have. It also contains hints on improving these situations, to prevent mistakes, which could lead to turnovers. This thesis should act as a starting point for people that are working with IT personnel for the first time.

Tato práce se zabývá specifiky řízení lidských zdrojů a to především řízení pracovníků z oblasti informačních a komunikačních technologií. Poukazuje na často opomíjené skutečnosti, které mohou mít dopad na celou firmu ve které daný IT specialista pracuje. Obsahuje také návody jak se vyvarovat chyb, které by mohly mít za následek uvolnění nebo odchod pracovníka představujícího kvalifikovanou pracovní sílu, která se nepadno nahrazuje. Tato práce má sloužit jako příručka pro pracovníky kteří pracují s IT specialisty poprvé.

## Shrnutí

Tato práce se souběžně zaměřuje na dva obory. Obor lidských zdrojů, jehož náplň činnosti v organizaci je řízení lidského kapitálu, tedy zaměstnanců. Tento obor poskytuje manažerům prostředky pro to aby mohli řídit produktivitu práce. Lidské zdroje jako obor se z nutnosti většího obsahu vyvinul z oboru personalistiky. Větší nároky na firmy, jako je například nutnost dlouhodobě a strategicky plánovat rozvoj svých zaměstnanců, je donutily k rozvoji tohoto odvětví za jeho počátky. Lidské zdroje v dnešní době obsahují několik odvětví. Těmito odvětvími jsou vyhledávání nových zaměstnanců, nábor, orientace nových zaměstnanců a rozvoj jejich kariéry. Dále do lidských zdrojů patří odměňování, motivace, benefity, vzdělávání pracovníků, jejich umístění na pracovišti a vztahy na tomto pracovišti. Pokud si zvolíme jakoukoliv z těchto oblastí lidských zdrojů, je důležité upozornit na nutnost individuálního přístupu. V lidských zdrojích platí více než jinde zásada, že generalizovat se nevyplácí.

Jak bylo již zmíněno, tato práce se nezaměřuje jenom na obor lidské zdroje. Druhou oblastí kterou tato práce obsahuje jsou informační technologie. Informační technologie se za posledních 20 let staly neodmyslitelnou součástí našeho denního života a umožňují funkčnost naší civilizace. Co ale do této oblasti patří? Nejsou to jenom počítače, jak by si někdo mohl myslet. Systém informačních technologií v sobě zahrnuje nejenom to. Informační technologie, neboli IT, někdy nazývané přesněji jako informační a komunikační technologie (IT), v sobě nezahrnují jenom hardware(počítače, tiskárny, atd.), software(operační systémy, programy pro specifické činnosti), ale také systémy pro zajištění komunikace. Definice IT je následující – „IT sektor je definován jako kombinace ekonomických činností (odvětví) produkující výrobky (technologie) a poskytující služby jež jsou primárně určeny k zpracování, komunikaci a distribuci informací elektronickou cestou, včetně jejich zachycení, ukládání, přenosu a zobrazení (OECD 1998, 2002, 2007).“ IT sektor se dělí na tři základní skupiny činností<sup>23</sup>(odvětví):

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23 *Informační technologie* [online]. c2009 , 9.6.2009 [cit. 2009-06-06]. Dostupný z WWW: <[http://www.czso.cz/csu/redakce.nsf/i/informacni\\_technologie\\_pm](http://www.czso.cz/csu/redakce.nsf/i/informacni_technologie_pm)>.

•**IT výroba (IT odvětví zpracovatelského průmyslu)** - zahrnuje odvětví jejichž hlavní ekonomická činnost souvisí primárně s výrobou přístrojů a zařízení, které jsou nezbytné pro práci s daty a informacemi elektronickou cestou (IT výrobky).

•**IT obchod (IT odvětví v oblasti velkoobchodu)** - zahrnuje odvětví jejichž hlavní ekonomická činnost souvisí s nákupem a prodejem IT zboží

•**IT služby (IT odvětví v oblasti služeb)** - zahrnuje poskytování a zprostředkování služeb, které přímo souvisí s informačními a komunikačními technologiemi (telekomunikační činnosti a činnosti v oblasti výpočetní techniky).

V dnešní době se za tyto nástroje komunikace považuje především internet. Jak je uvedeno výše, základem IT je možnost a zároveň nutnost zajistit vytváření, uchovávání a přenos informací. S rostoucí specializací a modernizací IT vznikla potřeba tyto systémy odborně řídit a spravovat. Tak vznikly pracovní pozice známé jako síťový inženýr, síťový administrátor, systémový administrátor, databázový administrátor, softwarový inženýr a mnoho dalších specializovaných pracovních pozic. Vznik těchto pracovních pozic a povaha pracovníků kteří v nich pracují měl za následek vznik problému v jejich řízení. Jak bylo již zmíněno, je v řízení pracovníků dosáhnout individualizace. Tato práce se zabývá specifiky, která jsou charakteristická pro pracovníky IT, jak se liší od pracovníků v ostatních pozicích a jak je nutné k nim přistupovat.

Jaké jsou charakteristiky pracovníka IT? Jaký přístup je nutný pro úspěšnou komunikaci? Uveďme si nejdříve všeobecné charakteristiky. Pracovník IT je ze 44 % vysokoškolsky vzdělaný člověk, který patří mezi kvalifikované pracovníky. Z věkového hlediska je 54 % pracovníků IT ve věku 15-34 let.<sup>24</sup>

Takovéto charakteristiky ovšem nemohou obsáhnout podstatu pracovníka IT. Pracovník IT se za posledních 20 let vyvinul. Pro pracovníka IT jsou specifické tyto charakteristiky – Je bezesporu kvalifikovaným pracovníkem, který je pro firmu v které pracuje existenčně důležitý.

Jeho náhrada, stejně jako náhrada jiného kvalifikovaného pracovníka by firmu stála několika-násobek jeho platu. Problém náhrady pracovníka IT je nyní ještě znásoben nedostatkem

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24 *Informační technologie* [online]. c2009 , 9.6.2009 [cit. 2009-06-06]. Dostupný z WWW: <[http://www.czso.cz/csu/redakce.nsf/i/informacni\\_technologie\\_pm](http://www.czso.cz/csu/redakce.nsf/i/informacni_technologie_pm)>.



potřebné pracovní síly na trhu.

Pracovník IT si je vědom jeho ceny a jeho důležitosti pro společnost.

Navzdory zažitým standardům, pracovník IT je velice kreativní a dokáže na sobě pracovat.

Pro pracovníka IT, je plat až sekundární motivací. Platy v oblasti IT se pohybují nad průměrem a pro specialisty jsou potřeba jiné formy motivace a stimulace.<sup>25</sup> Díky stále více se objevujícímu jevu zvanému outsourcing, vidíme posun ve vyžadovaných schopnostech pracovníků IT. Outsourcing přesouvá kdysi tradiční úkony pracovníků IT jako jsou programování, zpracování a údržba databází na externí firmy a způsobuje že pracovníci IT jsou konfrontováni s nutností vyvíjet jiné schopnosti, a to především z oblasti managementu a komunikace.

Z tohoto seznamu charakteristik můžeme vybrat ty nejdůležitější a podrobněji se jim věnovat. Začneme uvědoměním pracovníka IT o jeho důležitosti pro společnost. Je bezesporu pro společnost ve které pracuje důležitý, díky stále rostoucí závislosti daných firem na informačních a komunikačních technologiích. Toto uvědomění je tedy oprávněné, ale s ním přichází falešný pocit nedotknutelnosti. Tento pocit může vyvolávat konflikty jak se spolupracovníky, tak s managementem.

Pracovník IT, za předpokladu e dosahuje alespoň minimální mzdy pro jeho profesi, bude na další navyšování mzdy reagovat jinak než by se očekávalo. V poslední době se pro pracovníky IT mzda stává hygienickým faktorem, což má za následek tři možné situace. První situace je že mzda pracovníka je srovnatelná s mzdami jiných IT pracovníků ve stejném oboru, v tomto případě je pracovník IT spokojený. Pokud ovšem tato mzda klesne pod tuto hranici, samozřejmě přichází nespokojenost. Třetí možnost je že mzda se zvýší nad hranici sdílenou s ostatními pracovníky IT. V tomto případě ovšem již nedochází k motivačnímu efektu. Může nastat krátkodobý stimulační efekt, ale nadstandardní velikost mzdy již nemá v oblasti IT motivační účinek.

Pro všeobecnou charakteristiku pracovníků IT, používá tato práce systém MBTI, nebo-li Mayer's-Briggs Type Indicator, indikátor typů Mayer's-Briggsové, který pomáhá při charakteristice osobnosti pracovníků. Pracovníci IT jsou ve většině případů zařazováni mezi typy INTJ a ISTJ.

Způsobů motivace pracovníků IT bylo navrženo několik. Jedním z hlavních způsobů

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25 *Informační technologie* [online]. c2009 , 9.6.2009 [cit. 2009-06-06]. Dostupný z WWW: <[http://www.czso.cz/csu/redakce.nsf/i/informacni\\_technologie\\_pm](http://www.czso.cz/csu/redakce.nsf/i/informacni_technologie_pm)>.

motivace je jasnost zadaného úkolu nebo cíle. Jak bylo uvedeno, pracovníci IT patří do typové skupiny ISTJ a INTJ, tyto typy jsou založeny na logickém uvažování. Proto je nutný přímý a otevřený přístup, který pracovníci IT ocení. Další motivací je spoluúčast na projektech a plánech. Již bylo zmíněno že do výbavy schopností IT pracovníků se v poslední době začínají prosazovat manažerské a obchodní schopnosti. Nebylo by moudré těchto schopností na plno nevyužívat, protože to vyvolá u IT pracovníků nevoli. Neméně důležitým motivačním prostředkem je zpětná vazba. Pracovníci rádi uslyší jak dobře pracují, popřípadě kde přesně by se mohli zlepšit, nebo jak přispívají celkovému úspěchu firmy. Pracovníci IT byli charakterizováni jako schopní na sobě velice intenzivně pracovat, pokud uznají že jsou v některé oblasti pozadu. Mimo motivace jsou další oblasti ve kterých je potřeba specializovaného přístupu k řízení. Patří sem komunikační dovednosti, benefity, přístup k náborem nových zaměstnanců, rozvoj kariéry a všeobecné soft skills. Tato práce se zabývá analýzou těchto aspektů a dopadem těchto skutečností na chod společnosti ve které se IT pracovník nachází.

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