The Romanian IT Industry as a Source of National Competitive Advantage

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ABSTRACT
Given the strong growth that has occurred in the last 10 years in the Romanian IT industry and the growing interest which is still continuing to be granted, there is a necessity in providing a better understanding of the major actors in the IT industry along with their behavior. The current paper will attempt to provide an accurate imagine of the existing situation, as the Romanian IT firms increasingly compete on the global market for clients and talented knowledge workers. The end goal is the achievement of a national ranking on the main criteria that the IT workers consider important in a potential employer, a classification of IT companies on various criteria deemed important by both employees and global customers. Finally, this methodology will provide a blue-print for the Romanian IT firms who want to improve their overall organizational culture and desire to compete on the international market for talent and customers.

KEYWORDS: *Romania, IT Industry, Ranking, Companies, Human-Talent*

JEL CLASSIFICATION: *O3, J3, Z1*

THE PARADIGM SHIFT

In management circles, over the past century, there has been a vigorous debate upon the appropriate label utilized for a company's work force. The 20th century experienced an intensification of studies and academic papers in the area of organizational psychology and behavior, with the express purpose of gaining a better understanding on the behavior and motivation of a firm's employee. In 1958, Henry A. Landsberger elaborated the *Hawthorne Effect Theory*, based on a series of experiments conducted by Elton Mayo between the years 1924-1932 at Hawthorne Works, a consumer products factory outside Chicago (Landsberger, 1958; Schuler, 1997). This theory was the first to underscore the fact that employee behavior affected as a result of changes that occurred in the working environment (McCarney et al., 2007). Therefore the interest in the correlation between employee behavior and extrinsic motivational factors has increased and in the last half century led to the development of a separate field of management studies known as Human Resource Management. The name differed as the terminology evolved and the perspective of managers upon their employees changed. In recent years employees were called "personnel", "human resources", "human capital", and at latest in 21st century, knowledge-based economy "human talent". The following section shall present this evolution in chronological order for a better understanding of today's use of the word along with recent efforts undertaken by modern managers to increase the productivity and satisfaction of the work force.

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The personnel management era

The term "personnel" was introduced and utilized around the 1950's – 1960's, as organizations began to develop formal systems for managing and motivating their work force. The early steps were the design and implementation of performance assessment tool, the utilization of standardized tests for personnel selection, the centralization of employment decision-making activity, the appointment of a professional personnel director, and the develop of policies and procedures. These initiatives were mainly supported by labor unions (Schuler, 1997). Labeling employees as "personnel" created a culture in which they were perceived mainly as personae, a mass of people that share common characteristics used as inputs in the activity of the company. From this perspective, we can notice a more disengaged relationship between the managers and their employees.

The human capital era

Around the same period of time, but in the context of economic development and the fierce competition between free-market capitalism and Soviet-style socialism, another term was coined, namely human capital (Lewis, 1954). Initially, it had an unfavorable connotation since it was not clearly defined until a decade later by Gary Becker (1964). He defined human capital as any other type of physical mean of production in which an organization can invest. According to him, the main areas of investment were: education, training, and medical treatment. Thus, human capital is perceived as a mean of production requiring additional investment to generate value for the company. Human capital could be substituted by technology but not transferred; therefore, this approach also has a high degree of disengagement due to the emphasis placed only on the abilities of the employee to do a specific job related task.

The human resources management era

By the 1970's, workers found themselves with another label within the organization – human resources. This evolution in terminology brought a significant difference in the way people were seen at their workplace. As "human resources", employees were considered as important as any other resource needed for producing goods at the highest quality. Besides the elements introduced in the Personnel Management era, the HRM (*Human Resources Management*) brought several new areas to manage, such as: health and safety at the workplace, stress management, employee motivation, and labor relationships management (Schuler, 1997).

Thus, it can be noticed that employees' skills, knowledge, and experience are considered to add value in the organization by their contribution to the enhancement in productivity and the organization's capacity to adapt to change. Human resources are perceived as elements that bring a competitive advantage to the organization (Becker, 1964; Schuler & MacMillan, 1984). Yet, the term itself, "resource", could make employees be seen plainly as an exploitable source of profit for the company. Unfortunately, there are too many such examples of exploitation at the workplace to not take into account this aspect. But, in spite of this pessimistic approach, the evolution towards human resources marked a considerable improvement in terms of engagement between the organization and its employees.

The talent management era

Dr. Klaus Schwab, the founder of the World Economic Forum, stated in a conference on employment policy, "Jobs for Europe", organized by the European Commission in 2012, that the world is experiencing a new economic revolution determined by the revolution of globalization. Dr. Schwab also said that the most decisive factor in competitiveness is talent, and for developing talent it is necessary to invest in education, entrepreneurship, and even in the social area, namely social entrepreneurship. Thus, he continued, if Europe wants to create jobs, it has to cultivate talent, which is the capital of today and of the future (European Commission, 2012).

After almost a half a century, there was a paradigm shift, a change in how organizations perceived their employees – it became a "war for talent". This concept was introduced in 1997 by Steven Hanking in a study conducted by McKinsey & Co., an American consultancy company, and later it was included in a book that emphasized the attraction and retention of talented people in an organization (Michaels et al.). The authors argued that talent management is not a superior form of specialized human resources management, but rather a new way of thinking that sets a high emphasis on the importance of talent in an organization. The true meaning of talent management has been largely debated, some considering talent only as a euphemism for people (Lewis & Heckman, 2006). Meanwhile others see it as a mean for anticipating the need for human capital and develop a plan for optimal coverage of this need (Cappelli, 2008). Even though there is no certain definition of talent management, Edgar Schein demonstrated forty years ago that there is a correlation between the organizational efficiency and the process of planning and developing employees, which represents the actual basis of talent management, as it can be seen in practice by large companies. Schein argued that a manager must focus not only on the technical skills of the employee, but also on managing the decision making process, attracting the right people in the organization, encouraging openness towards communication, managing the emotions of employees and solving the conflicts that may occur, in order to improve the overall efficiency of the organization (Schein, 1976). Therefore, we can say that talent management is the process that encompasses the following activities: planning, attraction, and retention of employees in an organization through an ambivalent approach – managing and developing both the extrinsic component of the individual, namely technical skills; and the intrinsic component, that is represented by the inner experiences of the individual and his relationships; in order to maximize the efficiency of the company.

Thus, the paradigm shift occurs in this late stage of terminological evolution in which the individual, the “talent”, is no longer perceived as an asset of the company (as in the human capital era), but rather as a complex persona that can use and develop a wide range of abilities, for the interest of the organization, abilities that were not seen initially as job-related. The ability of an organization to engage with its employees at a higher level, to design customized development programs, and to encourage the employee to use his or her talents at the workplace, not only will it drive creativity, but will also motivate people, and will result, on the long term, in an increase in terms of productivity.

TALENT ATTRACTION AND CREATION

With all that is known about the importance of developing talent within an organization and all the money invested in developing successful talent management programs, a large number of organizations struggle to fill key positions, an essential element for their growth. Douglas Ready, visiting professor at London Business School, and Jay Conger, Chair in Leadership Studies at Claremont McKenna College in California, conducted a survey on human resources executives from 40 companies around the world in 2005 in which almost all of them indicated that they had an insufficient pipeline of high-potential employees to fill strategic management roles (Ready & Conger, 2007).

The research identified that organizational have formal talent processes in place, but they are no longer synced with the current needs on the market, which are critical for the growth of the organization. Furthermore, it has been revealed that deep seated commitment from senior executives on talent issues is a critical aspect, but very difficult to keep focus on. Also, the research identified that lean organizations have no room for development positions (Ready & Conger, 2007).

A talent factory, an organization that cultivates and promotes the importance of developing human talent, has two major critical elements: functionality and vitality. Functionality refers to the rigorous talent processes that support strategic and cultural objectives, while vitality refers to the emotional commitment by management representatives that is reflected in daily activities. On one hand, the functional component of a “talent factory” encompasses the tools and systems that allow the organization to find the *right people with the right skills in the right place at the right time.* It also allows the organization to clearly link its processes to the company’s objectives, while ensuring good design and technical excellence. On the other hand, the vital component relates to the attitudes and mindsets of those responsible for the processes that take place in the organization, placing a great emphasis on passion, which is a trait that is difficult to duplicate, but can be built into the organizational culture. Vitality is defined by three main characteristics: commitment, engagement, and accountability (Ready & Conger, 2007). The functionality and vitality of an organization's talent management processes determine how well it can groom its high-potential employees to fill strategic management roles.

Douglas Ready presented in a webinar entitled "Making Your Company a Talent Factory", hosted by UNC Kenan-Flagler Business School on November 10, 2011, a list of ten characteristics that make a talent factory. According to him, talent factories put people and culture at the very heart of their core purpose and have successive generations of CEO's who passionately express the strategic importance of human capital/talent management (and back it up by investing huge amounts of their time on the matter). They, also, make it a non negotiable expectation that leaders develop next generation leaders and place a great deal of emphasis on identifying talent early in their careers so they have optimal time and opportunity to develop. Talent factories use assignments strategically as 'classrooms for managerial and leadership development'; have an integrated and 'capability-building approach' to training and classroom learning that urge senior managers to provide honest and targeted feedback for developmental purposes. Talent factories are completely upfront and open about how they evaluate talent as well as the consequences of sustained non-performance, having a coordinated global process for identifying and developing talent for succession and executive resources planning purposes and a system that is in harmony with its culture.

So, in order to develop an organization oriented towards the development of talent, it has to get a better understanding of what are the main characteristics of a "talent factory" and to develop means for implementing them into its own culture.

THE ROMANIAN CONTEXT

Romania's economic development has experienced several time periods in which the speed and the extent of it was very sinuous, having many fluctuations. Judging by the events that occurred in the country's recent history we can notice two very important dates, namely December, 1989 – the year in which the communist regime fell in Romania, and Eastern Europe – and January, 2007 – the year in which Romania became member of the European Union.

The years that follow the fall of the communist regime brought a rather new concept in the Romanian economy, that is: the "lohn system". The term *lohn* derives from German and describes an economic activity realized inwardly. The lohn system is based on contracts between foreign investors or clients and local companies, having their activity mostly in the textile industry. This system focuses on processing materials or raw materials by a local producer on the demand of the external client. It is mainly the following situation: a company from the fashion industry in a country such as Italy brings a part of its materials to Romania so they will be tailored and sent back the home-country. One of the most important aspects in the lohn system is that it is sustained by a cheap workforce. That is why Romania was so attractive for these foreign companies, but until the year 2007, when Romania became part of the European Union. By then, Romania's economy has improved significantly and the level of wages has increased, making the lohn users to relocate their production towards Eastern Asia. In Romania there were about 500,000-600,000 people employed in the lohn system in 9,000 companies in 2001. Their production represented over 30% from the total exports of the country. It is true that nowadays, Romania is witnessing a new phenomenon in which large fashion companies move their production facilities back to Romania, because wages are increasing in Asia as a result of the expanding automotive industry and transportation costs are very expensive, both in terms of money and time (Ținteanu, 2012).

Romania's integration in the European Union in 2007 brought with itself a series of advantages to the country. One of the most important advantages was the free access to the European market. This came in a context of significant technological developments and infrastructural enhancements, and of an increased interest of students in technology. The years that followed emphasized both the technological advancements, Romania being the 4th high-speed Internet country in the world (Salway, 2012); and the students' interest in software development, so that in 2009, the number of students enrolled in technical universities has doubled, reaching a total of 50,000 individuals (Adina, 2011). These factors have contributed to what is known as "near shoring", which represents the transfer of business or IT processes to companies nearer to their headquarter. Western European companies choose to outsource part of their IT processes to countries that are closer and have a cost-quality ratio better than those in Eastern Asia. Romania manages to set itself on a high position in the global IT industry because it has a very talented and skilled workforce, and also because wages are lower than in Western Europe or the United States of America. We consider that the average level of wages for IT employees is not the main reason for companies "to near shore", because in Eastern Asia, wages are even lower. What differentiates Romanian IT people is the quality of the services they provide, along with the factors that were approached in the opening of this paragraph.

THE ROMANIAN IT INDUSTRY

In 2012, the Romanian IT sector amounted to $506.62 million, reflecting a slight year-on-year increase as a result of a more stable political and economic environment (Popescu, 2013). The outsourcing markets continued to grow in 2012, while the support and project services declined year after year, as the outsourcing model gained more popularity among Romanians.

Further on, we will present a SWOT analysis of the IT sector in Romania, as was researched by Business Monitor, a company specialized in providing trusted, independent analysis and forecasts on countries, industries and financial markets worldwide (BMI, 2014).

The strengths of the Romanian IT industry are given by the fact that Romania is forecast to be one of the faster-growing CEE IT markets over the next few years, with multiple growth drivers, having an extensive high capacity fixed broadband infrastructure, and increasing coverage of LTE coverage, providing derived demand for IT hardware via web services. Also, Romania is a popular destination for outsourcing/near shoring with international firms like HP, Microsoft, Oracle, SAP, Inter and Wipro all investing in facilities. One of Romania's major strength is given by the European Union membership, as stimulates the business environment and provides structural funds for IT programs.

Some of the weaknesses of the national IT industry is related to the political instability that has delayed necessary reforms in some industry sectors, an to piracy that still is prevalent according to the latest BSA survey data from 2011, which is a drag on software market growth.

In terms of opportunities, IT investment by enterprises is forecast to make a strong recovery in 2014 after several years of spending cuts. Romania has one of the lowest household PC penetration rates in the region, which means there is growth potential for hardware vendors in the first time buyer and multiple device household market. The local tablet brands have fared well, particularly Evolio, illustrating sales potential of low cost/low margin devices with local content. Also, local hardware brands are offering incentives to developers for local content, including fees and revenue sharing. The areas with the highest potential growth are the SME's and the public sector. Outsourcing continues to expand, with opportunities in the sale of higher value services, including cloud computing, particularly if the European Union passes harmonized rules on data and privacy.

There are three major threats to the Romanian IT industry, as follows: the economic environment, which remains vulnerable to potential external shocks form the Euro-zone; insufficient incentives in the IT field and low progress of government legislation on copyright and other issues; and continued price erosion in the tablet market, which could limit growth in hardware market value.

Having all these aspects covered, it can be noticed that the Romanian IT sector is a very attractive sector for both investors and the workforce, as opportunities are looming, talent is highly qualified and continuously improving, and as wages in this sector are above the average wage in the country. In order to remain competitive in the current environment, IT services providers should develop new expertise in more complex service offerings such as cloud, IT consulting, and business consulting. In addition, the IT sector should focus on optimizing IT investments to increase efficiency, helping the companies to achieve a competitive advantage (Popescu, 2013).

WHAT DOES AN IDEAL ROMANIAN IT COMPANY LOOKS LIKE?

This section plans to approach the ideal IT firm presenting what characteristics should it have, according to how employees want their workplace to be. According to a survey conducted by Computerworld Magazine in 2014 on a sample of 3,648 respondents, IT workers said for them what matters the most about their job are (Wilkinson, 2014): base pay (49% of respondents), job stability (45% of respondents), benefits (36% of respondents), challenge of job/responsibility (34% of respondents), vacation time/paid time off (32% of respondents), flexible work schedule/telecommuting (30% of respondents), job atmosphere/community (28% of respondents), their opinion and knowledge are valued (28% of respondents), potential for career development (19% of respondents), skills development/training opportunities (19% of respondents), financial stability of organization (19% of respondents), commuting distance/location (18% of respondents), recognition for work well done (18% of respondents), having the resources to do their job well (16% of respondents), corporate culture and values (16% of respondents), working with highly talented peers (14% of respondents), working with leading-edge technology (12% of respondents), effectiveness of immediate supervision (10% of respondents), how their work helps achieve organization goals (10% of respondents), and bonus opportunities (9% of respondents).

As it can be seen, IT workers look for these characteristics in an organization. In addition to these results, we have conducted in 2014 a research based on in-depth interviews with representatives of Talent Management departments from IT companies in Romania that shows the importance of talent development programs in improving company’s retention and employee motivation. The results of our study indicate that talent development programs add value through the development of both technical skills and soft skills, including business awareness, preparing IT people to evolve into the role of a consultant. They, also, improve employee performance, motivate people, and are no longer a competitive advantage, but a must-to-have in the IT sector.

Therefore, the ideal IT firm will take into consideration the needs of its employees and will implement a learning culture that promotes continuous talent development. This is a talent factory.

CONCLUSION

In the last century the world has changed dramatically. Due to various factors as globalization, the entire society and its economy has been revolutionized. The shift of paradigm that occurred during the last decades had to do with the concept of personnel management, later with the human capital management, the human resources management which led to the actual era of talent management. In today’s economy, talent factories represent organizations that cultivate and promote the importance of developing human talent. This concept can be observed also in Romania, and especially in the IT sector, which is the engine of the Romanian growing economy. As presented earlier in the SWOT analysis, there is still great potential of growth in the IT sector. Because of this, the industry was described, following that in a future paper to be presented a picture of the most attractive IT companies in Romania from an employee stand point.

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