

SOCIAL PROBLEMS AND RISKS IN A MULTINATIONAL COMPANY AFTER THE ADOPTION OF AN ERP INFORMATION SYSTEM AND RPA TECHNOLOGIES

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Abstract: *A series of social problems and not only, appeared in the national and multinational companies, from our country, with the appearance of the clearly superior technologies, to the existing ones in Romania, in the post-communist period. We will discuss this aspect in this article, the author having at hand a series of data collected from the implementation projects from which he was part of the team that founded such an information system. A series of risks and problems encountered will be debated here, a series of social problems that have occurred (from changes in attitude, perspective, adaptation to new requirements, changes in optics in terms of adapting to another specific activity - other processes, openness or not to discuss in another language of international circulation, other management style, conflicts arising due to age, new work style - automation, etc.). The research methods, in this case, were somewhat divided, we did a quantitative study, having some questionnaires, that we offered to be completed to all the existing actors in these projects and in the beneficiary companies (from management, to end-user - the SAP user (the integrated system we will talk about)), but at the same time we also discussed qualitative things, noting here about feelings, emotions, words addressed when needed and not only, things about how each could be managed project in part, when certain conflicts took place, etc.*

Keywords: *SAP; policies; RPA technologies; information; economy, multinational company.*

Introduction

After 1990, a series of changes took place in Romania, changes that influenced the economic environment. Many companies have been privatized; others have disappeared. Several companies, which before 1990, had overproduction, ended up being sold for nothing, or were acquired by multinational companies, which later imposed their own management. A major problem, from a social point of view, was rethinking the way staff coped with the changes, which inevitably occurred. Several employees have not found their place in the new structures. A refurbishment had to be done, so the way in which the employees adapted to the new requirements was one of the criteria that formed the basis of the large redundancies that took place (Albu, et al., 2015). What was never understood regarding the transfer of properties

in favor of the new companies, from the country (private individuals) or from abroad (public procurement), was the fact that the social problems of those who were employed could not be solved overnight. The post-December mentality had to be changed over time. Maybe these years have changed a lot, the generations have changed, but the repercussions have remained for those who were once part of those companies, which today have a completely different destiny. What the author saw throughout the various projects implementing ERP solutions was a great frustration regarding the way of understanding the new ways of working. Another great handicap, which, after 1990, people had, was the differentiation of learning, knowing, a foreign language – English, in particular. Many companies in Romania have been acquired by multinational companies from Europe and beyond. In addition to English, German also appeared, which in Romania has not been studied much, except in the big county town, a few (Banta, 2019). The author has seen countless resignations of very well trained, professional people, their big problem being: 1. foreign language; 2. they tend to be led by poorly trained people, but who knew a foreign language very well.

1. Research methodology

This research will start from identifying the latest sources of bibliographic documentation (manuals, books, articles, publications, reports, etc.), analysis, selection and processing of information so that, through the analysis of the impact of process automation tools (visual techniques analysis, the use of applications adapted for SAP), to be possible to outline an appropriate concept for communication with the business environment in Romania (Banta and Cojocaru, 2014). Thus, through exploratory research we will be able to correctly place the starting point of the analysis and the evolution perspectives of this field - the involvement of AI and RPA in Romanian companies, after 1990 (Huttunen et al., 2019). This study, part of this article, will involve a direct research by identifying the most used applications used in large companies that now use SAP R/3 and which will move to S / 4HANA in the near future (2025 is "end of life "for SAP R / 3), as well as an analysis performed inside a company that uses such software (the author will focus very much on the production area as well as on the sales and distribution area); the author will make a record on the applications used in modeling the financial-accounting and audit processes (Banta et al., 2014). This information has been collected, analyzed and presented in the form of detailed reports on this article. Another method that will be used is the survey, based on a questionnaire that will be applied to various categories of people in the companies analyzed, in order to establish the perception of the development of new types of technologies and identify their needs and changes that have come, along with them. The case study method: we want to analyze a company (companies), in order to see what implementation strategy was applied when

we wanted to implement AI and RPA in the financial accounting and audit area (adapting the modeling of existing processes, transforming repetitive things in automated processes), this will highlight which of the chosen methods gave the expected results, moreover, which strategy worked best and how it was applied in such a way that the interaction with the end user is effective and efficient. Practically, a case study will be carried out on the respective company aiming at the implementation and modeling of the financial-accounting and audit processes using the AI and RPA mentioned above, and any feature that will not be present in them, will be supplemented with adaptation. a model used and tested in an automated system (Kruskopf et al., 2019). What the author studied and analyzed were a series of data from projects launched in Romanian companies after 1990, (which use SAP, their transition to digitization, use S / 4HANA, in the Cloud or on-premises - analysis made after 2015) but also from the international environment, in order to see (possibly compare) how they manage their companies, the adaptation of SAP systems to new technologies - digitization - the transition to the new S / 4HANA application (having the Hana database), from social as well as technological view. All the results obtained in this way will be applied and adapted to the case studies considered, and then their effects will be measured (quantified). The use of artificial intelligence in the financial and accounting activity of an entity - introduction in the field of AI and RPA - the current stage in the field, are facts that are part of this research, meant to bring to the fore the fact of Romanian companies after 1990.

2. The emergence of new technologies - the main points to be discussed

The evolution of new technologies has had a major impact in everything that has meant economic activity, IT, etc., in large companies in our country and beyond. A series of activities, which until now were done manually, are now partially automated and in some places totally, this attracting a series of frustrations, fears, which later turned into social problems. This field of AI (Artificial Intelligence) has made its mark more and more, in most areas of activity, existing in our country - large companies investing money for this purpose. Of course, the field of accounting is not excluded either, so the impact on it will be very pronounced in the coming years (Kokina et al., 2017).

More and more applications will appear, their diversity trying to cover more than anything that can be modeled (repetitive economic processes), in one field or another, from engineering to accounting, being, clearly, everything that means acquisition and processing data science - data science. The new technologies that have appeared, the computer systems, in whose database, "all the activity of a company" is gathered, will move more and more to the digitalization part, the reason being that, with each passing day, they are more

and more data from various sources (existing systems in companies - various types, various databases, etc.), and an analysis of these is intended to be made as soon as possible, response times, wanting to be as small.

At this moment, this cannot be done as quickly as desired, so we will want to implement computer applications (tools) to help in this direction - their acceptance by attracting, by itself, social problems: people who will know, or not, to work with these applications, layoffs, the emergence of intergenerational discussions, being a problem, not to be ignored. Probably many things will be researched in this direction, one thing will always be the starting point, people, which cannot be discussed as not needed, in other words is part with data collection, which, together with the analysis and displaying these in an agreed format, will compose a necessary picture in the elaboration of some helpful conclusions in everything that will mean following the market trends and adapting the companies to them.

3. Conceptual delimitations

The evolution of society has attracted, as usual, an emphasis on the place and role of AI and RPA in accordance with the challenges that arise every day in society, the delimitations having a major goal. Such an appearance (computer products that use a very large proportion of AI and RPA) in a very short time, will reach a very high degree of knowledge, so that terms such as "self-sufficient" or "self-updating" will be handy (Othmar et al., 2019). It is about carrying out maintenance, without the need for human intervention. It may seem frightening now, but the reality is completely different. Repetitive things will be replaced in the future by robots that will know, based on programmed algorithms, to realize step by step what an employee can do. This will not detract from the importance of the human factor in this equation.

To be competitive you need to be up to date with everything that is new in terms of technology (even if this will have an impact on the company you are part of), to adapt in the company everything that is new and current, to educate people (there has been and will be a big problem here - adaptation to new methodologies, processes, mentalities) to use these new applications, thus remaining efficient (Davenport & Kirby, 2016). Over time, we wanted to discover as many methods as possible that can be modeled in computer applications that, together, make our lives as easy as possible and that meet the requirements of the business environment, increasingly eager for helpful ways. in daily activities.

Such a study aims to highlight the role of solutions that use AI in activities related to financial accounting and auditing, activities that are frequently performed in the business environment and not only - the impact being a major one - the changes that take place being very difficult to accept by those who work in the companies in question, in this research.

In this research, the author will want an approach to the reaction of employees of some companies (as it is about more data collected from several

companies) regarding the implementation of interfaces meant to collect and interpret data (here it is about programming / development - it will be want a parallel between the development, using UiPath solutions, as well as SAP - SAP Screen Personas), using integrated systems. In particular, there will be references, of course, to the largest computer system type ERP (Enterprise Resource Planning), namely SAP (Chen & Lin, 2008). The author did not choose this research - referring to SAP - knowing that this system is used in the largest companies, having the possibility to extend the solutions offered (covers ~ 24 industries - end-to-end) to desired customizations in any field of activity.

4. The case study – facts, discussions, limitations

Regarding the AI approach in the financial-accounting and auditing activities, professionals in the field should think and analyze three interconnected terms:

- design (designing, sketching, drawing) processes that AI can solve, can help us, because ultimately, we draw what the "robot" does;
- diagnosis (investigation) - we know very well that people run companies, people understand people's problems, so solving these problems also comes from us, the people;
- decide: here we know that AI is a very good thing in automating processes, in making decisions based on well-defined rules, but of course, at the end of each day we need people to judge clearly and effectively what AI has made during the analyzed interval, to look in the future at what will happen (consequences) based on the decisions taken, to see the impact of making such decisions, to be professionals knowing how to interpret the data and results obtained. The interfaces proposed by the author (implemented by the way) within the projects, the analysis of this article, imply the improvement of the way of working in some areas of financial-accounting as well as in the audit area - trying to attract as many employees to use or provide data for them.

In this research, the author has developed several interfaces that will be used in the areas of interest specified in this case study (production, sales and distribution, etc.), wanting to build a database, consisting of work scenarios and possible decisions. Their analysis leading to decisions much closer to the requirements of the business environment. Perhaps the appearance and creation of robots that, learned by those who will be further served by them, to perform various data collections (audit area), to interpret in a clear and to the point, the results provided being transparent without the right of appeal will have a major impact on the activity of some companies (Greenman, 2017).

The author wants a quantitative approach to everything that will be acquired as data and then address the qualitative part of the results obtained. The SAP system is a very complex system (24 supported industries - end-to-end processes), a system that will be able to help the author in developing, applying and verifying the data mentioned above, the complexity of their

selection, often leading to a hard work)(Banta, 2019). Such a field - which is served by artificial intelligence - is now very topical, more and more companies, with large volumes of data, trying to automate all kinds of processes, just out of the desire to solve everyday problems. as soon as possible and as accurately as possible.

However, this creates social dissensions, a series of jobs will dissolve, many employees will have to be retrained, material dissensions and more, will appear. The desire of the author of this article was to collect from the largest companies, which can be modeled with the help of AI and RPA, in the financial field of accounting and auditing, precisely to identify, model, quantify, solve, monitor existing processes in the business environment in our country, processes that can be found in the SAP ERP system (Banta et al., 2014). Moreover, the author wanted to make a record of what was replaced and how this impacted the business environment, in it's dimensions: material and social.

Perhaps the most important thing that will result from this scientific article will be to highlight the modeling of economic processes using state-of-the-art technologies, such as artificial intelligence, RPA, blockchain, etc., and how they have impacted the environment business in Romania. It is known that an adopted technology is meant to make it easier to work in a field, whatever it may be. AI is ready to transform this financial accounting area (however, almost 80% of companies still do not consider accepting this solution) into a safe area, with expenses in the area as low as possible, which will have a major impact on change which will take place in the coming years (Gotthardt et al., 2019).

However, AI has the role of facilitating the work of employees in a company, but on the other hand, the investment made by the company must be recovered, somehow (Robson and Bottausci, 2018). In accordance with the data collected from the field, during and after the implementation of the SAP project (1-month support - post implementation - in each project - the author tried to synthesize the common areas of interest - the analyzed companies having totally different areas of work), we set some of the characteristics (questions) encountered and quantified by the author, such as:

- Q_AI_1 - the biggest risk, on all the analyzed projects, was that of a known foreign language
- Q_AI_2 - another thing, which from a social point of view, had a major impact in all the projects carried out: cultural differences - major impact in understanding the way of working
- Q_AI_3 - frequent management changes - a difficult way to understand in Romania, after 1990, knowing that stability has always been a cohesive factor for the Romanian people
- Q_AI_4 - the adaptation of a software produced in another country, the way of interpretation, the translations of the terms used, very difficult to understand interfaces, were a major factor in accepting the change brought by it

- Q_AI_5 - rethinking the economic processes, in accordance with what the parent company (the one that bought the Romanian company) has, was extremely difficult to accept, the Romanian law not being so flexible
- Q_AI_6 - even if there were a series of branches all over the country, most of the functions (IT and executive) were concentrated towards the headquarters where it was decided to be HQ in Romania (in most cases -Bucharest - here there are also facilities - airport - relations with other companies in the field, etc.) - this had a major impact in terms of staff movements

Table no 1. The number of risk/problems collected during the implementation of ERP and adoption of the AI/RPA solutions (50 risks for 100%)

Risk	Company A		Company B		Company C	
	Implementation ERP	AI / RPA	Implementation ERP	AI / RPA	Implementation ERP	AI / RPA
Q_AI_1	9	2	18	4	6	1
Q_AI_2	7	1	22	1	6	1
Q_AI_3	8	0	13	0	8	0
Q_AI_4	8	6	16	4	8	3
Q_AI_5	12	6	14	12	9	1
Q_AI_6	4	0	7	0	5	0
Results	8	30%	15	42%	7	12%

As can be seen from Table number 1, the most collected risks are at company B, a company that operates in the oil & gas area. It was acquired by a company from another country, on which occasion; the main headquarters in Bucharest was populated with a series of specialists from all over the country (from the territory). The discussions were very heated when their arrival in Bucharest was discussed. Very big problems suddenly appeared. Another lifestyle, another city, the family stayed in the locality where they left - all kinds of discussions started, etc. Many families broke up, problems began to appear, unfortunately the company came with some help - money - but unfortunately it was not enough.

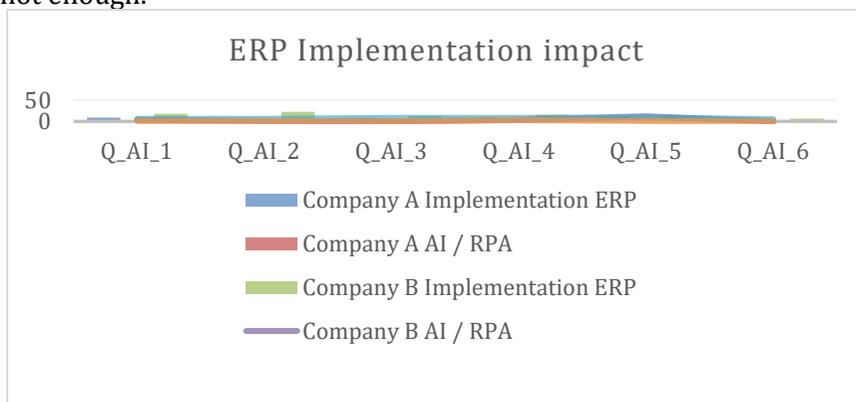


Figure no 1. The ERP / RPA implementation impact

Another problem arose in the implementation of the SAP system, being a new system, it was very difficult to be accepted - it can be said that it was imposed, somewhat, the impact being a major one, with many disadvantages, as is shown in the image above, the figure 1.

The figure 2 shows all the actors who were involved in implementing and maintaining such a complex solution, such as the SAP system.

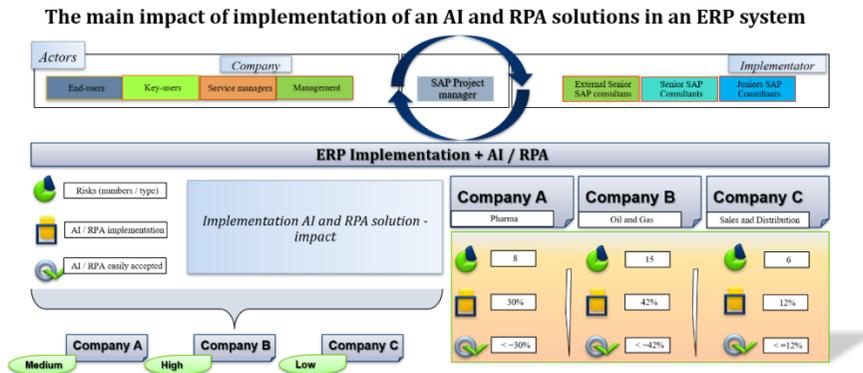


Figure no 2. The score after implementation of AI/RPA solutions...(%)

In the recent study, the questions asked by the author of this article, had in the foreground three categories, those who implemented the IT solution, those who used the IT solution, and the management who wanted to implement the IT solution. I referred, moreover, to the company in the oil & gas area, because here the social problems were the most. As you can see, there were a series of risks and problems, which were later or not solved.

The author can say that the response times from those who implemented IT solutions were not reasonable. Another aspect to consider was the involvement of multinational teams, the discussions were held many times in English, which was not exactly accepted by the Romanian business environment. At that time, the management intervention was not to the liking of the people who worked in the company, they hired a series of young people, without experience, just because they knew a foreign language. The culmination was the positioning of these young people in leadership positions. Then came the frustration of people who were very experienced and had over 15 years in the company. Thus, chain resignations or, even worse, dismissals appeared. It has been reached that after 5 years of implementation, the staff will be reduced by half.

Conclusions

Implementation of ERP solutions in Romanian companies had a major impact on the daily lives of those who, after 1990, had to change their work style, the current mentality being a free one. Not all the employees have accepted the new IT solutions, which has led to a rethinking of the way of

working for many employees in large companies, who have afforded such software, the desire of companies being to be competitive in a moving market. Moreover, AI or RPA solutions have appeared. AI has the role of eliminating things that are repetitive, tiring, with the possibility of making big mistakes, in favor of things of greater importance, such as planning, organizing and developing strategies - useful to companies. From the read articles, certain characteristics found in the big companies are retained, in the area of financial-accounting and audit, knowing that here we work with very large volumes of data. This is where the possibility of not interpreting in a way that is as accurate as possible appears, due to the fact that, the diversity of the data collected is great. The information systems currently existing in the market are designed to collect data from several areas of activity, to unite them in increasingly sophisticated reports. It is clear that, in this era of digital transformation, many companies have to deal with very large amounts of data, which will have to be processed, analyzed, and reported by those who are in this area of activity, namely financial accounting and auditing. One thing is for sure, streamlining processes and in-depth data analysis - perspective view, is something that will have to be adopted by large companies, so that, with the help of AI, to explore the opportunities offered by this new technology. Another important factor, which must be mentioned, is that of the massive departure, from Romanian companies, of well-trained people. A recent study, based on concrete data, shows that of the companies analyzed by the author, more than 53% of well-trained people left. Many specialized companies appeared in Romania, after 1990, knowing that the oil and gas school here is a very good one. Thus, most of the very good specialists migrated to these companies. Here, too, problems began to appear, departures abroad, new IT technologies, having to be found among the daily occupations. The other companies analyzed in this case study were based in Bucharest, the branches they had in the country, having very few people, and the need for migration was not so strong. Areas such as IT, supply, human resources, were centralized by large companies, which inevitably led to those staff relocations, who wanted, of course, who did not, had to leave the company, with financial compensation offered.

Acknowledgement:

"This work was supported by the grant POCU380/6/13/123990, co-financed by the European Social Fund within the Sectorial Operational Program Human Capital 2014 - 2020".

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