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HUMAN RESOURCES – A RPA PERSPECTIVE

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Abstract
Robotic Process Automation - RPA technologies are known as solutions to support or replace the human factor by automating repetitive and routine tasks, with a positive impact translated by increasing the level of productivity and eliminating the risk of error specific to such operations. These software "robots" have been adopted rapidly and widely in various fields of activity, given the proven efficiency in the field of data collection and information provision in departments or segments of operational flow where the volume of routine processes is high but also big time and money consuming. Beyond the immediate and measurable benefits of various key performance indicators, the implementation of such systems within organizations - regardless of their nature - raises a rather thorny issue, namely the relocation of human resources that is practically removed from current attributions and tasks for which it is qualified. This article aims to assess as closely as possible the ethical aspects of RPA digitization and the effects that such technologies can have on an essential component of a company's capital: the human factor.
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JEL Classification: M1, M2, M4, O3.

1. INTRODUCTION

In England during the industrial revolution of 1811-1817, a group of textile workers whose jobs were threatened with extinction following the introduction of new machines, started a real revolt by attacking several production facilities. Although suppressed by the British government, the movement has remained in the memory of economic theorists as a form of protest regarding the widespread introduction of automation thus seen as a cause of job losses for certain categories of workers (Brynjolfsson and McAfee, 2014). Thus, the need for efficiency and increased profitability determined by mass production led industrialists to see technological progress as a solution with positive effects in terms of financial results; The social impact, however, had dramatic connotations, especially in terms of the effects determined by the new "technological unemployment". The latter phrase was originally defined as a new "disease" by John Maynard Keynes in his 1930 essay – "Economic

Possibilities for Our Grandchildren". The economist predicted a reality that was increasingly close to his times, namely, the replacement of the classical workforce by industrial innovations that were carried out at a higher rate than an eventual professional reconversion (Keynes, 1932).

In the opinion of other theorists, the unemployment thus arising is a temporary phenomenon and of a small magnitude; John Bates Clark argued that technological progress is a component of the creative force of capitalism, and although economic dynamics displace human resources from classical positions, better opportunities are created (Clark, 1907). The economic crisis that broke out in 1929 seemed to confirm Keynes' theory, but the period after World War II created an acute need for labor, with technological unemployment disappearing as a threat at least for a while.

The advent of the computer and the Internet, however, led to new dilemmas in the world economic landscape, which led the Nobel Prize laureate, Wassily Leontief, in 1983, to bet on the gradual reduction of the role of the most important factor of production, namely, the human resource, just as it happened with the disappearance of horses in agriculture, being replaced by tractors (Leontief, 1983). The theory that technology is a major cause of job loss has been challenged, however, by a wide spectrum of economists who believe that automation and other forms of technological progress generate more jobs than they eliminate. Apparently, the reasoning is simple: reducing production costs leads to lower prices and, implicitly, to an increase in demand; in a competitive market, technological changes have the effect of increasing production, which requires more labor, thus compensating for the reduction of human resource expenses per unit of product (Brynjolfsson and McAfee, 2014).

The accelerated pace of digitalization in recent years, the regional specificity in the broad spectrum of globalization, the complexity of the implications of automation in different fields or branches of economic activity require, however, a more careful analysis of the perspectives of the labor factor of production in terms of certain aspects, beyond the general self-regulation mechanisms mentioned. In recent years, consistent signals have been sent to analysts and policy makers regarding the adverse effects of smart information technologies, especially on the risk of unemployment. Such a warning concludes that, based on a machine-learning algorithm developed at Oxford University, 47% of jobs in the USA are at risk of being automated in the next 20 years (Frey and Osborne, 2017; Nedelkoska and Quintini, 2018). Elon Musk warned in 2017, at a World Government Summit in Dubai, about mass unemployment, which will be a real social challenge due to the sharp reduction in the number of jobs that will not be affected by robotization, and Bill Gates even proposes the taxation of automated work (Larson, 2017).

However, the dynamics of the current global economy as well as the shortage of qualified personnel in certain sectors together with the phenomenon

of migration urge a certain dose of skepticism in the analysis of studies and statistics and a realistic approach to the analysis of the effects of digitalization. In the case of RPA – Robotic Process Automation products, the arguments presented above are no exception, but it is necessary to present the particularities determined by the application of such software products. Thus, in the general and complex landscape of automation, it should be noted that RPA products outline a new market with a growth potential by 2030 at the level of approximately 31 billion. dollars, according to a Grand View Research study conducted in April 2022. The demonstrated role in making operations more efficient within an organization is also based on the potential of such a software robot to replace the work of 2 to 5 employees in terms of performing routine, repetitive and time-consuming activities.

This article reveals and analyzes a possible series of RPA effects on human resources such as unemployment, employee demotivation as well as the need to rethink organizational culture. The scientific approach considers the current context of automation but also the real needs and possibilities of professional retraining of human resources.

2. WHAT IS AN RPA AND WHAT IS IT FOR?

"Robotic Process Automation (RPA)" is, in essence, a software solution that summarizes a complex of tools intended for automating repetitive processes or tasks and in significant volume (Lawton, 2021), replacing or minimizing the intervention of the human factor. The automation of work processes started since the industrial era and replaced manual data entry, thus contributing to the development and implementation of RPA on a large scale in information processing on various organizational levels. The applications of Robotic Process Automation, according to a definition given by Professor Leslie Willcocks from the London School of Economics, "mimic the activity that a human performs in order to perform a task within a process, performing repetitive operations faster, more accurately and for a longer duration than a human can perform" (Lhuer, 2016, p. 1). Thus, data are transferred from email or spreadsheet sources to other processing or registration systems – for example, from the Enterprise Resource Planning (ERP) and Customer Relationship Manager (CRM) category, the ease of such operations determining a generalized absorption of RPA within, mainly, large companies interested in reducing costs at the same time as increasing the quality of the services provided and in the shortest possible time frame (Lacity and Willcocks, 2016). Relieving human resources of repetitive, energy-consuming tasks that are permanently at risk of inherent errors thus leads to an increased availability for creative, challenging and value-generating activities.

For a correct understanding of the notion, three basic characteristics of RPA emerge that are eloquent for the way these systems interact with data and complement the information systems within organizations:

- ✓ *Mimicking human actions* – similarity to how the human factor interacts with applications (common interfaces), collects information, and then uses it by inserting it into other applications or worksheets (Vasarhelyi and Rozario, 2018). The replication of human operations is carried out after a prior recording of the targeted processes, thus helping to avoid inherent errors caused by routine (Quinn and Strauss, 2018).
- ✓ *Automation of repetitive processes* – the absence of the decision-making or creative component by following a set of well-defined rules, this aspect being partially compensated by Machine Learning algorithms or Artificial Intelligence technologies (Vieira, 2015). Relieving employees of routine and repetitive tasks allows them to be involved in more complex and motivating activities, with a direct effect on increasing the level of creativity of the work performed.
- ✓ *Use of existing applications* – use of the usual interfaces, no complex integration or special connection is required for current applications. Interconnectivity with tools such as PDF, MS Excel, ERP, CRM, PowerPoint, etc., as well as with HTML pages or email programs contributes to increasing operational efficiency within an organization by reducing costs (Siderska, 2020).

Thus, RPA systems connected to the applications in an organization's information system can move and transmit files, folders, or other types of data, read, and interpret emails, fill in forms and manipulate structured/unstructured data from documents, browsers, or other sources. This non-intrusive interaction with other digital systems allows a complete or at least partial automation of specific human processes or activities with a beneficial effect on the level of efficiency or operational productivity (Vasarhelyi and Rozario, 2018).

3. RESEARCH METHODOLOGY

The study analyzes the implications of RPA in the process of allocating human resources through a contextual approach to the current developments in the field by analyzing the articles dedicated to this topic, but also the case studies or statistics made by the main players in the market:

- RPA product providers – white paper publications, applications offered, fields of application, development trends, etc.
- Companies specialized in market research, e.g., Gartner, Forrester – scoring the main trends, predictions for the development of automation tools in terms of investments or areas of use.
- Companies/government organizations – with experience in implementing RPA, but also in terms of redistributing and/or retraining human resources directly affected by the automation of routine processes.

The dynamics of the analyzed field requires a certain rigor of the way of

selecting the materials in terms of sources, they must be recognized and verifiable, the year of publication, emphasis is placed on novelty, the relevance of the content, extraction of innovative ideas. Thus, the identification of data sources containing publications relevant to the subject resulted in electronic libraries such as IEEE, Science Direct – Elsevier, SpringerLink and Google Scholar. In addition, the bibliographic resources cited in the content of the articles thus identified were also taken into consideration and the alerts from Google Scholar were necessary to identify, during the writing of this paper, the news published about RPA. Publications in English were considered by introducing in the search process expressions such as: "robotic process automation", "cognitive process automation", "intelligent process automation", "RPA and unemployment", RPA impact on employees". The use of the abbreviation "RPA" has been avoided because the acronym serves a broader terminology, unrelated to the processes envisaged. For instance, Remotely Piloted Aircraft – in NATO terminology, Rubin Postaer Associates – advertising agency, Replication Protein A – the main protein that binds to single-stranded DNA in eukaryotic cells, Republican Party of Arkansas/Armenia – political parties, etc. Similarly, the phrase "RPA impact on HR" was not used, as it generated a suite of software solutions dedicated to the management of human resources within a company.

The main research questions of the study can be summarized as follows:

Q1. What are the current applications for RPA?

Q2. What are the known effects of RPA involvement on human resources within an organization?

Q3. What are the main dilemmas or challenges in terms of the social impact generated by RPA following the need for professional reorientation or relocation of employees?

Based on the research questions, the criteria for acceptance and exclusion of the relevant articles were established:

Acceptance criteria:

- The publications correspond to the topic of RPA and contribute with answers to the proposed research questions.
- Titles and abstracts contribute to the research idea and contain the terminology stated above ("robotic process automation", "RPA and unemployment", etc.).

Exclusion criteria:

- Publications are not written in English.
- Titles and abstracts do not contribute to the resolution of research questions, although they include the terminology used to search for them.
- Ideas or other relevant aspects of the research are repeated.
- The extracted publication only compares existing research, without

bringing new contributions or ideas.

Both acceptance criteria were considered to take over the source of information and if only one exclusion criterion was verified, the article was not included in the research base.

4. RPA SUCCESS STORIES

The results achieved so far, financially, and operationally, further encourage the implementation of RPA worldwide, where appropriate. According to a 2020 Gartner report, the RPA market is the fastest growing segment in the software area: 63.1% in 2018 and 62.9% in 2019, compared to 13.5% and 11.5% representing total market developments (Gartner, 2020). At the same time, against the backdrop of the COVID-19 pandemic and, implicitly, the global recession, the same study estimates an acceleration in the insertion of RPA solutions to support remote work, the digitization of physical/paper operations. The losses recorded by companies during this period have led to a pressing need to reduce expenses by automating processes and reducing the number of employees involved in performing redundant tasks. Thus, a Grand View Research Report notes an increase in RPA adoption with an annual growth rate of 39,9% from 2023 to 2030 (Grand View Research, 2024).

The analysis of the success stories of RPA implementation within organizations – companies, government institutions, etc. – reveals, first, the achievement of a high return on investment (ROI), while reducing the processing time of repetitive tasks, reducing the error rate, and reducing operational costs. To cover different fields and to provide a more complete picture of the current level of involvement of process automation, case studies from the financial-banking field, industry as well as public services are further analyzed.

Bancolombia, one of the largest financial groups in Latin America, operates in 12 countries, being ranked 4th on the list of the most sustainable banks worldwide in 2019. At such a level of operational complexity, the need for digitization of the work methodology was manifested within the organization to streamline internal processes. In this context, the implementation of RPA technologies pursued the following objectives:

- ✓ Relieving human resources of routine, repetitive tasks as well as reorienting them towards activities with superior creative potential.
- ✓ Improving the company-customer relationship through faster and more efficient services.
- ✓ Reduction of complaints and information reprocessing.
- ✓ Increase productivity and reduce operational risks.

The actual effects in quantified form were extracted from reports of the RPA provider, the beneficiary as well as from other analyses of other

organizations interested in the evolution of RPA in the financial-banking area, as shown in Table 1.

Table 1. RPA impact for Bancolombia

Areas of impact	Results	RPA environment
Human resources	127,000 working hours released annually in over 600 branches 290 end-users trained in RPA practices 437 FTE (full-time equivalent) issued 2.2 mil. USD annual payroll savings	Instruments: 461 robots deployed Locations: Initial - Back-office processes Expansion – front-office processes Operations: 249 automated processes 1,858 automated workflows
Customer relationship	50% increase in customer support service efficiency Implementation of automation in consulting and helpdesk (2 products: Investbot, chatbot)	
Operational efficiency, return on investment	20% increase in sales in branches Reduced operational risk by 28%, 1300% ROI	

Source: own processing

From the point of view of human resources, Bancolombia claims that, under the motto "derobotization of talents", automation has improved the degree of employee satisfaction at work, beyond the decrease in labor costs (Ribaucourt, 2019). At the same time, the taking over of administrative tasks by RPA gives the sales teams the possibility of increased focus on the relationship with the beneficiaries, on activities with high creative potential (consulting, diversification of service packages offered, etc.), although automation, in tandem with an artificial intelligence component, has also intervened in financial consulting and analysis. Thus, through the Investbot robot, Bancolombia supports clients in managing their investment portfolio, provides real-time information on their performance and financial market predictions are made. At the same time, the implementation of a "chatbot" in the customer-bank relationship creates the possibility of providing financial advice online as well as generating dynamic keys for securing digital transactions.

The Quality Management department of **Mercedes-Benz AG** is constantly faced with the need to ensure certificate compliance for component parts in the final products sold in the Chinese market. MB and its suppliers must meet the standard requirements of China Compulsory Certification (CCC), which basically leads to an extensive process marked by strict legal regulations or regular audits by the authorities. Any syncope in the information flow between MB and its suppliers can lead to blocking access to the target market products with major strategic implications for the entire industrial group (Kreuzwieser *et*

al., 2021). Consequently, the company decided, in April 2019, to check all 1500 certificates uploaded to its own database to detect invalid or missing documents. The entire procedure was carried out manually, the inspection requiring a considerable workload (229 hours of work) and having a high rate of specific human error. The company's decision to opt for RPA was aimed at solving several desires, among which the following can be listed:

- ✓ Reduction of certificate processing/verification time;
- ✓ Imprint a continuous character to the product quality validation process – CCC;
- ✓ Improving the quality and accuracy of the MB supplier certificate database.

In this case, one of the determining factors of the successful automation of the process of monitoring the certificates of conformity was the cooperation with the departments directly involved, the start being given by the staff with Quality Management attributions. The involvement of the Procurement and Certification departments in the design and implementation phase, together with the services of an external consulting firm, led to a realistic and sustainable architecture of the RPA project.

Table 2. RPA impact for Mercedes-Benz AG

Areas of impact	Results	RPA environment
Human resources	Reduction of processing time from 229 hours to 51 hours 5,075 FTE The ad-hoc certificate verification process is supervised by 1 employee	Instruments: RPA implemented in about 2 months (Uipath product) Working mode: ✓ Before RPA is enabled, an employee selects the type of technical documentation to process ✓ Select all certificate numbers and save them to checklists ✓ Comparison of the lists with the history of certificates on each supplier ✓ The deviations are translated into the Excel report and sent to the Procurement.
Customer relationship	Increase customer satisfaction with the final product	
Operational efficiency, return on investment	Reduction of the percentage of invalid certificates from 17% to 5% Reducing the error rate to less than 1%	

Source: own processing

As the company was at the first implementation of such IT tools, external consultants encouraged the introduction of a preliminary "proof of concept" stage to determine the feasibility of the project. This procedure lasted 3 weeks and finally led to the decision to adopt RPA in the on-premises version. The

introduction of process automation took about two months and streamlined the management of the relationship with suppliers, on the one hand, and ensured the compliance required by foreign markets, on the other hand. The replacement of hundreds of hours of manual database verification and processing work with an automated system eventually led to the handover of the entire RPA process to an MB subsidiary.

In the public sector, an eloquent example is provided by the automation implemented in the Swedish city **of Ronneby,** where the municipality manages social assistance services. Thus, the granting of aid to families with insufficient income or in financial impasse is carried out based on the analysis of the files submitted by the applicants; social workers receive and process the submitted documents and decide whether assistance in the form of advice or financial aid is appropriate (Socialstyrelsen, 2021). Prior to automation, the documents were submitted on paper and starting with February 2019 it became possible to submit the documentation via email or by uploading it to the institution's website. In those circumstances, the work of the employees of the Swedish municipality consisted mainly of administrative tasks, repetitive and in significant volume, given that the applications are submitted monthly. The implementation of RPA, in this case, pursued the following objectives: speeding up the process of analyzing the files submitted for the granting of social assistance, reduction of budget expenditures and increasing the share of advisory services.

The automation of the operations underlying the provision of social services presented was carried out in stages, with the following targeting: application renewal procedures – February 2020, analysis of new files – June 2022, and control processes overactive files – March 2021.

As preliminary actions in ensuring the functionality of the Ronney robot (as it was named by employees) can be considered: the implementation of digital application transmission solutions as well as streamlining work processes based on an exhaustive set of rules governing the entire process of dealing with applications received for social assistance (Karlberg Hauge, 2022). The digitalization of operations has thus led to the desired results, the effects of the transformation of social workers' work through RPA being transposed into Table 3.

The automation of the file analysis processes leads to a higher level of accuracy of social assistance decisions in accordance with the set of rules that establishes the level of amounts to which applicants or households are entitled. Thus, the risk of human-specific error or even the possible tendencies of subjectivism that may appear in the analysis of the applications is removed. At the same time, the liberation of human resources from repetitive, purely administrative activities and the specialization of more than half of the available staff on support and consultancy activities for families in financial impasse have positive long-term effects for local budgets. It is estimated that the identification

of a stable job by the applicants will lead to the elimination of the need for financial support but also to an increase in budget revenues because of salary taxes and other fiscal components.

Table 3. RPA impact for Ronneby municipality

Areas of impact	Results	Implement RPA
Human resources	70% of the approximately 450 applications/month are digitally transmitted and processed via RPA 14 workers move from the same administrative tasks to organization in 2 groups with different objectives (file processing, consultancy)	Instruments: The Ronney robot – gradually involved in: ✓ Renewal of files ✓ Processing new files ✓ Operational control through: - Taking over the collected information and comparing it with officially recorded data; - Generating essential reports for establishing the level of social assistance; - Issuing notifications on changes in files; - Regular checks on the status of applicants.
Beneficiaries of social aid	Reducing by an average of 8 days the processing time of the files (from 19 to 11 days), implicitly the number of phone calls from complainants dissatisfied with the duration of the analysis of the applications	
Operational efficiency, return on investment	Elimination of redundant operations and data. Reduction of applications for social assistance (following the intensification of counselling services)	

Source: own processing

5. DISCUSSIONS

In general, when discussing notions from the large family of typology generated by digitization/automation, etc., ideas related to easy data processing, intelligent systems for generating information and knowledge, technological progress with a direct effect on the efficiency and profitability of organizational processes are conveyed even at the definition stage. By way of example, we can mention:

- ✓ *Business Intelligence applications* – "automated systems for disseminating information to various sections of any industrial, scientific or governmental organization" (Heinze, 2014); "the set of concepts and techniques that support the business decision-making process" (Kemp and Dietz, 2009).
- ✓ *Data warehouses* – "a set of tools for querying, analyzing, and presenting information" (Kimball and Ross, 2002); "a collection of subject-oriented, integrated, historical, and non-volatile data intended to support managerial decision-making" (Inmon, 1992).

- ✓ *Big Data Analytics* – "advanced analysis techniques applied to large data sets" (Russom, 2011).
- ✓ *Cloud Computing* – "technical support for cloud services that provide real-time solutions over the Internet" (Bohm and Krcmar, 2011); "a new technology for hosting computing resources and delivering services over the Internet" (Abbasov, 2014).

On the other hand, from the definitions dedicated to RPA terminology as well as from the analysis of the functionality of this software solution, there is underlined the objective of "replacing" or "minimizing" the role of the human factor in carrying out repetitive and time-consuming operations (Hyun *et al.*, 2021; Lawton, 2021; Hsiung and Wuang, 2022; Atencio *et al.*, 2022; Fatima *et al.*, 2022; Sobczak, 2022). From the conceptualization phase, relieving employees of routine tasks and those who are at high risk of error leaves room for interpretation for at least two reasons: Is the entire human resource directly affected in terms of duties by the installation of RPA capable of adopting more complex tasks or tasks with higher creative potential? If the answer to the previous question is no (totally or partially), what personnel policies can management adopt to use the workforce thus deployed and which are in line with the objectives of the respective organization?

Beyond the perspective outlined by figures, from the point of view of human resources directly involved or affected by the automation process, the same studies highlight advantages such as:

- "Derobotization" of employees – eliminating boring and repetitive tasks, while developing an environment that encourages creativity.
- Employee flexibility – creating new levers and skills for working remotely and on online platforms (as demonstrated during the Covid pandemic) (Piroșcă *et al.*, 2021).
- Motivating employees – reconsidering job descriptions by converting them to more complex, more engaging tasks and at the real level of the intellectual capacities of the data subjects.

The case studies presented are examples of successful RPA implementation considering the results obtained through automation, organizations thus managing to streamline operations that, in the first phase, were large consumers of resources (human, material or financial) and that led to questionable final reports in terms of accuracy and timeliness.

Depending on the sector of activity and the profile of the organization, the introduction of RPA was mainly aimed at replacing manual operations and eliminating the specific risk of error. To reach such a result, the cases presented demonstrate a series of prerequisites necessary for this type of digitization:

- ✓ Standardization of processes – the operations concerned must be based on a precise set of rules.

- ✓ Operational volume – automation brings real benefits in the case of processing a considerable amount of information.
- ✓ Operational routine – the targeted processes must be of a high frequency, having an accentuated repetitive character.

Table 4. Comparative analysis on RPA impact

Organization	Targeted operations	Operational volume	Operational routine
Bancolombia	Back-office & front-office operations	249 processes/ operations	Filling in electronic forms Investment Portfolio Monitoring
Ronneby Municipality	Application Processing Renewal of applications Compliance control	450 files/month	Collection of data uploaded electronically or submitted on paper Verify documents
Mercedes-Benz AG	Updating the database on suppliers' certificates of conformity	28,000 positions in the database	Regular verification of certificate compliance based on checklist

Source: own processing

From the perspective of human resources directly affected by process transformations, things are different from one case to another depending on the complexity of the mechanisms needed to be digitized, the level of staff training and the post-automation transformations in the organizational chart or operational flow. Both in the case studies presented and, also, in the reviewed literature (Piroșcă *et al.*, 2021; Sobczak and Ziora, 2021; Atencio *et al.,* 2022 Bisht *et al.,* 2022; Cieslukovski *et al.,* 2022; Mohamed *et al.,* 2022; Tokarcikova, 2022) there is no complete information on the relocation of personnel replaced by software robots except in a few cases found mainly in public services.

In general, to assess the success of an RPA project, in addition to the financial results, e.g., ROI – Return on Investment, the FTE - full-time equivalent indicator is used to measure the entire work norms replaced by automation. Bancolombia declares 437 released FTEs at the branch level in the back-office and front-office areas, by including an artificial intelligence component. Thus, the relocation of staff to consulting seems to be a partially possible move since the consultancy is also carried out through a chatbot. Mercedes-Benz AG, in identifying a solution to eliminate any non-conformities of component parts suppliers and to permanently update its own database, supports the saving of 5,075 FTEs, by automating the processes within the

Quality Management department. The personnel policy in the context of the introduction of software robots is clearer within the municipality of Ronneby, an aspect highlighted not only by the case study presented or by the software provider, but also by the local press (Voister, 2020). In this case, we do not have information on released FTEs, but clarifications are made regarding the post-automation role of social workers within this public institution. Curiously, unlike the other two cases, the implementation of RPA was a lengthy process (from 2019 to 2021) and one that was carried out gradually. The explanation can be given by the fact that it is an activity with a high social impact and is subject to strict legislative regulations. At the same time, within the public service, the staff has higher education, being qualified in consultancy dedicated to individuals or families in financial impasse or looking for a job.

Table 5. RPA impact on HR

Organization	Released FTEs	Work freed up	Relocation of human resources
Bancolombia	437	72.000 hrs	Focus on increasing the skills of the digital employee No concrete data are available on the relocated staff
Ronneby Municipality	Unknown	64 hrs/ file	The team of 14 workers is divided into two working groups: file analysis and consultancy.
Mercedes-Benz AG	5.075	178 hrs	Staff are involved in the implementation of RPA The RPA solution is transferred to an MB subsidiary No concrete data are available on the relocated staff

Source: own processing

In the case of the public welfare service in Ronneby, the redistribution of human resources is beneficial in the long term for the local budget as the number of applications for financial aid may decrease as applicants are guided and supported in finding a job. Undoubtedly, RPA does not pose a threat to job security and contributes to increased job satisfaction for social workers who are relieved of administrative burdens. In the private sector, however, the reality can be different for several reasons:

- ✓ Financial reasons – e.g., in the RPA project, Bancolombia records ROI 1:14 and payroll savings of USD 2.2 million annually.
- ✓ Long-term strategies of organizations – Mercedes-Benz strengthens its position in the Chinese market.

- ✓ The COVID pandemic – caused a series of economic difficulties, forcing the operational resizing of companies.
- ✓ Emerging technologies – the generalized infusion of intelligent information processing tools determines the rethinking of human resources policies.

Regarding information technologies, it is not news that job security can be jeopardized by their adoption in the sphere of so-called "white collars". RPA solutions are primarily a threat to job description duties that require a medium level of professional training if viable relocation alternatives are not found within the organization or if employees are not engaged in retraining programs. Companies are more interested in developing a so-called "digital workforce" component in which the role of the human resource is dependent on the ability to adapt to new conditions. In the case of Mercedes-Benz or Bancolombia, the relocated staff may be involved in tasks that have arisen because of automation, such as maintaining the database, monitoring RPA processes, or using implemented IT tools (e.g., within Bancolombia, RPA has been bundled with other applications). These changes, however, depend on training in digital technologies, a minimum understanding of automation processes, the adoption of a specific language, the adoption of information processing tools.

6. CONCLUSIONS

It can be said that, in the current context of digitalization, process automation can become a disruptive factor for job security. Beyond other political, economic, or social convulsions that can give a character of general instability regarding HR strategies, excessive technology generates certain fears or, at least, raises questions about the fate of the targeted employees. Obviously, in the offers of RPA providers or in the information in any form of companies that have experimented with automation, there are appreciations about the fact that human resources are the main beneficiary as they are relieved of tedious and time-consuming tasks. It should be noted, however, that many of those employees have been hired or are trained for such activities, and any changes can have consequences such as: resistance to change - including sabotage of the project, inability to adapt to the new requirements and, finally, job loss. It is unrealistic, from our point of view, to consider that human resources will be able to fully adapt in the happy version in which the organization offers them this possibility.

The present work is marked by its own limits determined by a series of factors such as: small number of covered fields of activity or casuistry, lack of official financial accounting/HR data that denote possible personnel fluctuations, the pandemic period recently crossed which has the potential to divert certain results of the analyses on figures or situations from their true meaning. However, it is precisely these limitations in conjunction with the results presented that

encourage research in the direction of HR destiny in the context given by process automation and, especially, in the conditions in which RPA tools will acquire cognitive capabilities through the integration of artificial intelligence components.

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