



Risks and Benefits in Using RPA in Financial Reporting

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Abstract

In the general picture of financial-accounting processes digitization, RPA (Robotic Process Automation) tools are distinguished by a series of characteristics given, mainly, by the ability to replicate human activities. Thus, unlike Artificial Intelligence, Machine Learning or Cognitive Computing, RPA acts primarily in the user interface area based on clearly defined protocols and procedures without compromising or modifying the basis of the IT infrastructure. That's why these solutions are considered non-intrusive, easy to use and cheaper compared to other financial reporting automation technologies. However, beyond more or less quantifiable benefits, these programs carry certain risks whose awareness is essential to achieve the desired goal of automation. This paper, in addition to presenting the opportunities created by aligning RPA to facilitate financial monitoring and reporting efforts, pinpoints a series of challenges or weaknesses of these solutions that, if not properly managed or combated by alternative solutions, can at least lead to the failure of such a project. The practice of the last years together with the diversification of automation solutions already allow the generation of some conclusions as well as the adoption of a cautious approach regarding the attractiveness of RPA in designing and building financial reports.

Key Words: RPA (Robotic Process Automation); financial reporting; software bots;

JEL Classification: M1, M2, M4, O3

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Introduction

The concept of "digitization" has become subject of intense debates today, especially in terms of the impact on economic life and the prospects for the development of the technologies involved. Digital transformation is an ongoing process and purpose of strategic policies at the level of states or community blocs, e.g., European Union, colossal budgets being allocated for their support. Digitization takes on new dimensions as it occupies vast geographical territories, has complex applicability, and acquires a strategic role. Simple "computerization" within companies, institutions, regions, etc. is replaced by a complex of technologies and work procedures that lead to transformations and reconfigurations of the economy and work in general.

Defining digitization is not exactly an easy task due to term's implications and the increasingly varied fields of application. Academia defines digitization through digital communication and the impact that digital media has on contemporary social life (Brennen & Kriess, 2016). Thus, the term is synonymous with a strategy or process that goes beyond the implementation of technology to generate profound and fundamental transformations of business models and the evolution of professions. The Gartner Group sees digitization as "the use of digital technologies to change a business model and provide new opportunities for revenue and value creation; it is the process of moving to a digital business". Digital transformation is more about people and less about technology, as it is organizational change to be supported by management, determined by radical challenges to corporate culture and by the leverage of technologies that empower and help employees.

In the broad and complex context of digitization, the automation of office work derives from the need for cost reduction, operational efficiency, paper reduction and, finally, superior utilization of available human resource skills. The automation of work processes, an approach initiated since the industrial era and found today in applications that replace manual data entry, has contributed to the development and implementation of Robotic Process Automation (RPA) solutions on a large scale in information processing at various organizational levels. The origins of RPA can be found in "Screen

Scraping" programs dedicated to the extraction of texts from any page or application user interface, web, image, HTML or PDF file, the results obtained being dedicated to end users, without further processing in the initial version (Liu, 2020). Robotic Process Automation applications, according to a definition given by Professor Leslie Willcocks from the London School of Economics, "imitate the activity that a human carries out in order to complete a task within a process, performing repetitive operations faster, more precisely and for a longer duration than a human can achieve" (Luher, 2016). Thus, data are transferred from email or spreadsheet sources to other processing or recording systems - for example, from the Enterprise Resource Planning (ERP) and Customer Relationship Manager (CRM) category, the ease of such operations causing a generalized absorption of RPA within large companies interested in reducing costs simultaneously with an increase in the quality of services provided and in a shorter period (Lacity, Willcocks and Craig, 2015).

Unburdening the human resource of repetitive, energy-consuming tasks and under constant risk of inherent errors, thus leads to increased labour productivity and, at the same time, leaves room for creative, challenging and value-generating activities. It is the reason why there is an upward trend in the volume of investments in process automation, but also a diversification of the fields of application. According to a 2020 Gartner report, the RPA market is the segment with one of the fastest growths in software products: 63.1% in 2018 and 62.9% in 2019, compared to 13.5% and 11.5%, respectively, representing total market developments (www.gartner.com). At the same time, against the backdrop of the COVID-19 pandemic and, implicitly, the global recession, the same study estimates an acceleration of RPA insertion to support remote work, the digitization of operations on physical/paper support. The losses recorded by the companies during this period determined an urgent need to reduce expenses by automating processes and by reducing the number of employees involved in performing redundant tasks. Thus, the Grand View Research report from April 2021 notices an increase in RPA adoption trends within small and medium-sized companies and a dimensioning of the profile market at the level of 13.74 billion dollars in 2028

(www.grandviewresearch.com). With such a predicted growth rate, companies are guided to find the right balance between innovation and risk, according to a report published by Deloitte, that warned as early as 2018 about the undesirable but possible effects of an erroneously applied automation (www.deloitte.com).

1. RPA aplicability in financial-accounting reporting

RPA tools cannot have generalized applicability within an organization or business due to the fact that these technologies automate processes based on rules without cognitive capabilities, exceptional situations being handled by the human factor (Santos, Pereira and Vasconcelos, 2019). It is the reason why organizations interested in automation must identify, standardize and optimize information flows; these restrictive conditions led to a reformulation of the definition of RPA, an example being the studies of the IEEE Advisory Group which concluded that these technologies are "preconfigured software applications that use business rules and predefined choreography of activity to complete the autonomous execution of a combination of processes, transactions and tasks in one or more software systems to provide a result or service, taking into account exceptions handled by the human factor" (IEEE SA, 2017). The provider UiPath recommends that interested organizations, before initiating the desired automation, identify the targeted processes, involve all personnel - not only from IT, apply progressive automation - from basic to complex processes (www.uipath.com). Ensuring the success of the implementation of an RPA project within an organization, regardless of its organizational form, involves certain stages (Fung, 2014):

- Aiming at processes of reduced complexity and cognitive level;
- Maintaining existing applications;

- Selection of processes and tasks with a relatively high frequency in the general operational flow;
- Identifying situations with a high risk of human error and avoiding the inclusion in automation of possible exceptional situations (which can be handled by human intervention).

Similarly, the IoT Agenda website, in a 2020 report, specifies the essential characteristics that an RPA-automated process must have (www.techtarget.com):

- Considerable and repetitive operational volume;
- Based on structured digital data;
- Clear rules, with a reduced or non-existent rate of exceptions;
- Prone to errors in the variant involving the human factor;
- Sensitive to time or strongly seasonal.

With a more applied approach, Forrester Research analyst and RPA expert Craig Le Clair recommends applying the so-called "rule of 5" when identifying processes that lend themselves to automation (Le Clair, 2020):

- Five decisions: RPA works for simple applications that operate in high volume but do not involve more than 5 decisions; otherwise, the organization would require complex business process analysis and modelling applications;
- Five applications: software bots can be sensitive to changes, which is why it is recommended to maintain a maximum number of 5 applications involved in the process;
- 500 clicks: maintaining a maximum number of 500 mouse clicks or keyboard touches required to run the automated process.

The profile literature, the recommendations of RPA providers or analysts and experts in the field, but also the results of the considered practice converge towards a synthesis of the domains in which automation solutions find their appropriate applicability. Starting from customer relations, continuing with data collection operations, completing, and submitting forms, preparing invoices and even financial reports, optimizing email notifications, etc., process automation has a significant scope in some sectors of activity, as it is shown in **Table no. 1.**

Table no. 1. RPA applicability by sectors of activity		
Sector	Motivation for automation	Documentation source
<i>Client service</i>	The efficiency of the contact centre by: automatic retrieval of electronic forms/scanned documents, off-loading duties of the employed staff/renunciation of call-centre type services, focus on improving services or strengthening the brand, analysis of data sets regarding the behaviour of buyers.	Tech Target Report 2020 (www.techtarget.com)
<i>Financial-accounting and audit operations</i>	Fast and complete data collection and integration from various sources (Excel sheets, email, scanned documents, existing applications, etc.), building online financial reports, generating inventory reports, reconciling data, generating financial audit evidence.	Chakraborti, 2020; Hyun & Lee, 2018; Lacity, Willcocks & Craig 2017; www.uipath.com
<i>HR</i>	Generating payrolls, time attendance, online selection and recruitment, evaluation of the professional performance of employees, automated generation of internal forms on request, etc.	Karlberg Hauge, 2022; Tech Target Report 2020 (www.techtarget.com)
<i>IT Management and services</i>	Ensuring backups for certain files, managing alerts (email notifications, server restarts, password resets), ensuring source code control.	Hyun & Lee, 2018; www.techtarget.com www.uipath.com
<i>Supply Chain Management</i>	Automation of order and payment processing, inventory monitoring, planning, and tracking of freight shipments, partner selection, accurate and timely invoicing.	Kaur, 2023; www.techtarget.com
<i>Public Services</i>	Retrieving data from electronic forms or scanned documents, collecting relevant data from the web, connecting existing systems, expanding consulting services, reducing public expenses	Karlberg Hauge, 2022; www.uipath.com – The White Paper: The Path to a Digital Administration www.deloitte.com

Source: authors' projections, 2023

Among the stated sectors of activity, this article focuses on how RPA applications transform the way of consolidating financial reports, bring added value to the effort of collecting, integrating, and processing financial-accounting data, while highlighting the possible risks that can lead to failures in the implementation of such a project.

2. Research methodology

The study considered, as the main working tool, beyond the exhaustive treatment of the specialized literature, the analysis of practice in the field of RPA from several points of view:

- RPA products – offers, news, developments, volatility in the market of such products;

- Case studies, practical examples – automation solutions successfully applied in the field of financial reporting, highlighting shortcomings and risks in the automation of financial data management processes;
- The context – organizational culture, the need for professional retraining of human resources, constraints, and legislative changes.

The fact that the analysed field - digitization, and, in particular, process automation - is a dynamic one, having applications with an alert expansion of applicability, the present analysis forces a certain rigor in the selection of materials through the prism of the source (it must be recognized and verifiable), the year of appearance (the emphasis is on novelty), the relevance of the content (the extraction of innovative ideas). Thus, the identification of data sources containing publications relevant to the topic resulted in electronic libraries such as IEEE, Science Direct – Elsevier, Spring-erLink and Google Scholar. In addition, the bibliographic resources cited in the content of the articles identified in this way were also taken into consideration and the Google Scholar alerts were necessary to identify, during the writing of the present work, the news published about RPA. Publications in English were prioritized by introducing in the search process expressions such as: "robotic process automation", "cognitive process automation", "intelligent process automation", "RPA for financial reports".

The conditions that the processes targeted for automation through RPA must meet to be digitally transformed in the desired form - volume, frequency, human resources involved, structured data, etc. were analysed considering the financial-accounting sector particularities. Thus, the authors identified a series of benefits and risks of generating automated financial reports through several aspects:

- Typology of automated operations so far;
- Financial-accounting data sources;
- Data form: e.g., structured/unstructured, scanned documents, electronic forms, etc.;
- The degree of human resource involvement in the automated process through RPA

In the logic of the initiated approach, the main research questions were established:

Q1: What is the current state of RPA involvement in financial reporting?

Q2: What challenges/problems have been solved by automation and how well they have been met?

Q3: What are the necessary conditions for a financial process to be amenable to RPA automation?

Q4: What are the main risks in automating the generation of financial reports and how can they be managed?

The answers obtained were treated to provide a complete picture of the contextual situation, to offer practical solutions for the digital transformation of reporting and to suggest future research directions in the sphere of RPA role in collecting and processing financial-accounting data.

3. Results and discussions

Q1. The need for digitization in the construction of financial reports derives, first, from their addressability as the nature and complexity of the audience have evolved (Ghandar, 2022). Thus, the way in which information is transmitted must come out of the characteristic conservatism and overcome the barriers of transposition on paper by adopting through intelligent tools of dynamic transposition of the presented elements. For example, a digital report may adopt a common language or "taxonomy" that makes use of "labels" assigned to essential components in the layout presented for different purposes and for different users. The opening of the financial-accounting information to a diverse range of persons or entities becomes possible and, more than that, gives companies more control over the reports' quality, avoiding the errors specific to manual transcriptions or .pdf format. Opting for more prompt, if not real-time, reporting becomes feasible under the conditions of ensuring a way of intelligent data collection and processing through appropriate instrumentation and adapted work procedures.

In this context, RPA has found in the financial-accounting sector a fertile ground from the applicability point of view due to the specifics and needs manifested in this field. The consulting and audit company Deloitte believes that the motivations for automation are represented by (Szalony et al., 2018):

- The need for a high level of accuracy and informational consistency;
- The human and repetitive nature of transaction processing;

- Collecting information from fragmented sources/systems;
- Dependence on input data, data processing, report generation.

In the same report, Deloitte identifies, through an analysis carried out at client companies, the main operations that RPA can perform within financial and

accounting departments, their typology starting from transactional processing to consolidations and ending with financial reporting. This typology of RPA functionalities was the basis for interpreting the results of another study applied in 2019 to several companies that had automated a wide range of financial data collection, recording, analysis, and reporting processes, as it is presented in **Table no. 2**.

Table no. 2. Processes carried out through RPA

Identified RPA capabilities	Frequency of using RPA in three financial processes		
	Order-to-cash	Procure-to-pay	Record-to-report
Open, read, and create emails	11	7	4
Log in to enterprise apps	15	10	13
Move files and folders	0	2	5
Copy/paste	7	6	8
Fill in forms	8	6	7
Read/write to database	14	7	8
Follow decision rules	9	7	8
Collect statistics	1	0	0
Extract data from documents	7	5	5
Make calculations	0	0	5
Obtain human input via emails/workflow	9	7	4
Pull data from internet	2	0	3

Source: Authors' projections based on data on Deloitte Report – *Internal Controls Reporting Considerations for Developing and Implementing Bots* and case study available on <https://www.sciencedirect.com/science/article/pii/S1467089519301101?via%3Dihub>

The lowest values of the frequency of automation tools involvement were highlighted in the case of collecting statistics, performing calculations and extracting data from the Internet, as opposed to the operations of opening and reading emails, interacting with other applications or databases, filling in forms or moving folders/files; all these operations are structured, repetitive, based on rules and without paper inserts, allow the highest degree of RPA involvement (Kokina & Blanchette, 2019). These tasks contribute to financial reporting, with automation facilitating, according to Deloitte, the processes of validating entry books, reconciling low-risk accounts or generating reports, or at least

completing consolidation/reporting forms (Szalony et al., 2018).

Q2. Regarding the problems that have been solved by process automation, the analysed case studies reveal, first, a need for quick and correct centralization of financial data available in various sources of generation and/or storage and in digital form (Table no. 3). The elimination of the human factor from the flow of data retrieval and subsequent loading in various more or less sophisticated platforms has the role of strengthening the management act by reducing costs, error risks and by assuring unlimited number of working hours (bots do not rest, have no work breaks, or leave).

Table no. 3. Problems per activity sector solved through RPA

Beneficiary		RPA Project			Documentation source
Activity sector	No of employees	Problem to solve	RPA Solution	HR impact	
Energy	>4000	Multitude of data from different sources (SAP reports, BI, Excel) retrieved manually for reporting or comparative analyses purposes. The need to optimize the reporting process.	Automating the process of transferring data from SAP and Power BI to Excel sheets.	Saving 12 weeks/year for every 6 FTE (Full Time Equivalent)	https://infopulsemarketing.blob.core.windows.net/infopulse-case-studies/74-an-elegant-rpa-solution-for-automated-financial-reporting-in-the-oil-and-gas-industry.pdf
Public Health	>1500	Increased variety of human resources, difficulties in monitoring and reporting on personnel expenses.	Automated creation of personnel files, generation of reports for management.	Efficiency increase by 0.25 FTE	https://www.delaware.pro/en-be/stories/rode-kruisvlaanderen-digitizes-its-employee-data
Airline division (IT)	>1000	Integration of financial and accounting operations at the group level, prevention of bank card fraud.	Automation of ticket refund operations, management of freed seats, reporting and global monitoring of financial impact.	Taking over the work of 25 FTE	https://www.uipath.com/resources/automation-case-studies/air-france-klm-top-management-introduced-rpa
Banking	>3300	Complex procedures for closing accounts, the need for real-time internal auditing.	Automation of closing operations triggered by simply completing an electronic form, auditing the procedure in 1 minute.	Significant volume of deployed FTEs from the first year (numerical data missing)	https://www.blueprism.com/uploads/resources/case-studies/blueprism-coop-bank-manual-efficiency-case-study.pdf
Extraction and mining	<1000	Manual completion of approximately 60 financial reports, each report requiring at least 60 minutes.	Number of reports reduced to 7, intervention/validation by a single human operator.	FTE reduction from 10 to 1.	https://www.rpatech.ai/rpa-in-financial-reporting-case-study/
Road transport	-	The need to reconcile advance payments with every invoice, difficulties in generating financial reports on time.	Automatic processing of data available in ERP, generation of desired financial reports in Excel format.	Saving 6 hours/day of manual work in the financial-accounting department.	https://www.aggranda.com/rpa-case-study/vintila-the-reconciliation-process-with-rpa/

Source: Authors' projections based on data available on specified sources

All the analysed case studies underline management's concern for streamlining data collection and centralization operations by filling in predefined forms and, in most cases, in Excel format that is easy to interpret by a level of users less familiar with sophisticated intelligent tools. Summarizing, in relation to financial reports, the main problems that find their solution through RPA are:

- Reduction of processing time, release of work norms (FTE) of repetitive, routine operations, in large volume and often with a strong seasonal character (e.g., reimbursement of the counter value of air transport tickets), generating fast and correct reports on the financial status of certain operational flows;
- Simplification of the reports generated by organizations' apps and with a complex analytical level simultaneously with the integration of other information sources (email, internet, digitized financial-accounting statements, etc.) - e.g., taking the data generated by the ERP and harmonizing with the other databases.

An interesting aspect is the fact that most of the companies interested in RPA want to implement also automation means for an internal audit; this fact is due to the elimination of post-check procedures specific to manual operations, which creates the need for a tool to monitor and control records.

Q3. The case studies reveal the fact that in addition to the characteristic elements of the processes targeted by the RPA, namely repetitiveness, routine, considerable volume, pronounced seasonality, existence of rules and lack of exceptions, a series of requirements, due to financial and accounting departments specifics, are also recognized:

- The data must be structured and in digital format (e.g., SAP, Power BI, ERP reports or simple Excel layouts) and provided by fragmented, varied accounting applications/systems;

- At the beginning, automation is recommended to be applied to simple, risk-free processes – the back-office area is taken into account, thus avoiding direct contact with customers;
- It is recommended to avoid the insertion of RPA in areas of unstable apps or that extract data from outside the company;
- Automation must target operations carried out by several employees who are thus motivated to move from simple registration tasks to more motivating activities and in line with professional training: predictive analysis, consulting, etc.
- The financial reports obtained through RPA must be correct, understandable, and accessible to management that wants this information to be available in a very short time or even immediately.

Q4. The risk that an RPA project fails is due, first, to the failure to meet the conditions already listed and avoiding unnecessary investments in this regard requires a series of checks and even preparatory operations. The objective of reducing costs determined by the significant volume of hours specific to routine and repetitive operations or implementing some changes, in the case of already existing internal applications, becomes feasible only if certain steps are followed that companies with experience in using RPA as well as suppliers recommend. Thus, the selection of the processes targeted for automation is the first step in the implementation of such a project, regardless of whether this stage is carried out internally or through the RPA supplier (Kokina & Blanchette, 2019). Risks can come not only from an incorrect initial assessment or insufficient preparation of the processes but also from a poor implementation and monitoring of the automation progress. Therefore, from our point of view, it is necessary to analyse the main risks identified in two stages - pre and post automation implementation (**Table no. 4**).

Table no. 4. Risk categories in the implementation and development of process automation

Risks		Solutions	Documentation source
Preparatory stage	Post-implementation stage		
The perception of RPA – seen only as tools for quickly solving some problems/covering some informational syncope, for some instant financial reports – <i>risk of erroneous setting of automation objectives.</i>		Detailed analysis of tasks to be automated in order not to underestimate their importance for the organization, to obtain correct and relevant financial-accounting information.	Mamede et al., 2023.
Ambiguous processes, incoherent data flow – <i>risk of errors in reports built with RPA input.</i>		The targeted processes must be based on clear rules, of low complexity and highly repetitive.	Moreira et al., 2023; Kokina & Blanchette, 2019.
Digitization of data (e.g., documents in .pdf format or invoices listed on dot matrix printers may be difficult to be read by RPA, transmitting erroneous information) - <i>risk of incorrect data retrieval and generation of reports with errors.</i>		The use of scanners/per-fomant reading programs – e.g., OCR (Optical Character Recognition) The use of standard digitization solutions in issuing and exchanging documents between the organization and third parties.	Januszewski et al., 2021.
Staff with low IT skills do not appreciate or understand the importance and effects of automation – <i>risk of resistance to change, project sabotage.</i>		Involvement of all staff from the financial-accounting department in implementation, orientation towards motivating activities - monitoring, error intervention, supervision of the final form of financial report, etc.	Kokina & Blanchette, 2019; www.deloitte.com
	The multitude of bots deployed, controlled by too many employees, with access to passwords or special privileges - <i>security risk.</i>	Strict inventory of implemented robots, clear RPA access procedures for financial-accounting departments employees.	Eulerich et al., 2022.
	Implementation of bots without coverage of insurance needs - <i>audit risk</i> (e.g., RPA with rights to record financial-accounting data in ERP systems with an impact on financial statements)	Periodic checks and controls	Eulerich et al., 2022.
	Core tasks change and RPA does not perceive these changes (incorrect data processing/retrieval) – <i>risk of errors in financial reports.</i>	Establishing a central procedural framework at the level of the organization, with work procedures and clear rules for the using and monitoring of RPA.	Eulerich et al., 2022; Szalony et al., 2018.
	Automated processes are forgotten in their functionality, the RPA operating mode is no longer known (the people who implemented have left the organization) – <i>risk of knowledge loss.</i>	Closing and maintaining clear and up-to-date documentation of automated tasks and RPA workflow	Kokina & Blanchette, 2019.

Source: Authors' projections based on documentation sources

The analysis of practical results from the sphere of RPA implementation in the construction of financial reports reveals a reality sometimes deviated from the desired objectives through automation, a fact due to technical considerations (e.g., difficulties in reading documents in .pdf format), human (e.g., resistance to change) or procedural (e.g., incomplete structuring or not based on precise rules of the tasks to be automated). The correct management of all identified risks can ensure a real contribution of RPA in structuring a correct, relevant, and timely financial report.

4. Conclusions

The 2018 Deloitte report on the degree of RPA tools involvement in digitization of specific processes within client companies shows that the most involved sector is the financial accounting, with a percentage of over 50% of the total organizational processes (Szalony, 2018). It is natural, under these conditions, that these software "robots" effectively participate including in the construction of financial reports, by taking data from fragmented sources and placing them in electronic forms in the format agreed by the interested users. The present article has demonstrated that, from the point of view of the stage of RPA involvement, there is a considerably greater weight in automating data collection operations, interacting with databases or internal applications, filling in forms than performing calculations, collecting statistics, or extracting data from the Internet (Kokina & Blanchette, 2019). All these routine and repetitive tasks are the perfect "victim" for disruptive technologies like RPA, according to a Gartner study that shows that more than 25,000 hours of manual verification work per year in a company with 40 full-time employees in the finance-accounting department can be replaced by these technologies (Lavelle, 2019).

Regarding the solved problems by RPA, research has shown that the results are especially visible in the case of host organizations having complex activity. Regardless of the sector (financial, human resources, logistics, etc.) the HR displacement through automation is feasible only in the conditions in which quantifiable results are brought mainly by the number of full-time equivalents (FTE) saved. The manual preparation of the information desired by management is a long-term operation, exposed to errors and subsequent rechecking, which determines the need for profitability, increased productivity of employees that are seen as norms or total working hours with a direct

impact on the budget. Including the preparation of financial reports is a task that can only be automated under conditions where the retrieval of data from internal applications or other reports in digital format is carried out based on precise rules, from digitalized internal sources, in a structured way. Thus, question Q3 of the study is also answered, by listing the requirements identified for a successful application of RPA in the provision of financial information. Being a sector in which precision and speed of calculation are essential for the decision-making process, the tasks in the back-office area lend themselves to automation precisely because of the operational volume and the specific repetitive and routine character.

Regarding the risks identified in using RPA, the analysis of the obtained results shows a somewhat more complex reality than the picture "painted" by the case studies of the suppliers or by a significant part of the studied literature. If the data digitization is apparently sufficient for their takeover in the automation process, the risks generated by the incomplete reading of some .pdfs or the intrinsic modification of the targeted processes can lead to the cancellation of the desired effects and, more than that, to the reintroduction of manual work (Kokina & Blanchette, 2019). The management of companies that have gone through the RPA experience recognize a series of difficulties in implementing such a project due to several considerations (Szalony, 2018):

- Insufficient preparation of the data involved;
- Incomplete knowledge of information flows;
- Failure to make necessary corrections in the standardization of the processes targeted by automation;
- Implementation of poorly designed algorithms, bots with errors;
- Failure to prepare or neglect the human factor displaced from specific tasks;
- Lack of clear rules or standards from regulatory bodies regarding automation.

The risk is, first, of a financial nature as it is an investment that, beyond the purchase of the license, also involves the relocation of human resources, professional retraining, process restructuring or the purchase of more efficient equipment. Again, the stake is given by the complexity and size of the organization concerned; in the case of important groups such as AirFrance-KLM, where the operational volume is huge and involves considerable

human resources, the motivation is given by an imperative need to reduce expenses and to accelerate the obtaining of financial reports. In other cases, it may be a need to eliminate errors or to find solutions to the crisis of qualified personnel.

The identification and standardization of the processes targeted for automation, together with the subsequent monitoring of the processes and how RPA works, are actions aimed at ensuring the functionality of such a project, to bring added value in the effort to structure the financial reports necessary for the decision-making act

within an organization. Implementing clear procedures and strict policies on how these virtual "workers" are managed in terms of data access, algorithm updates, sensitive databases, contributes to the desired scalability of the project. Given that the insertion of artificial intelligence components has the potential to change the way RPA works in the near future, we believe that one more direction of research is needed to anticipate the impact of these tools on financial reporting. The human factor still has the final say in the completion of periodic statements, but the outlook heralds an inevitable paradigm shift.

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