ROBOTIC PROCESS AUTOMATION FOR HR BUSINESS PROCESSES: CAPABILITIES AND LIMITS IN THE RUSSIAN CONTEXT

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Abstract: *The rapid expansion of digital technologies in Human Resource Management (HRM) has increased interest in Robotic Process Automation (RPA) as a tool for improving efficiency in routine personnel workflows. This study examines the current capacity and limitations of HR robotization by analyzing Russian RPA platforms and identifying which HR business processes can realistically be automated. Using a descriptive qualitative approach, the research applies literature-based descriptive analysis, induction, classification, and comparative analysis. Open-access materials from the official websites of seven Russian developers (HR ELMA 365, Primo RPA, PIX RPA, Robin RPA, SHERPA RPA, ROOMY bots, and ATOM.RITA) were used as the main empirical base. The results show that HR robotization is most developed in recruitment and personnel recordkeeping, especially in repetitive tasks such as vacancy monitoring, candidate interaction, interview scheduling, document processing, onboarding, termination, and time tracking. However, many HR activities remain non-robotizable because they depend on human judgment, emotional intelligence, ethical evaluation, contextual interpretation, and strategic decision-making. Overall, RPA should be viewed as a supportive instrument that reduces routine workload and error risks rather than a replacement for HR professionals.*

Keywords*: robotic process automation; human resource management; HR digitalization; HR processes; Russian RPA platforms*

INTRODUCTION

The global market for digital tools in Human Resource Management (HRM) is expanding at a fast pace, reshaping how organizations manage people, information, and internal procedures. Current academic discussions increasingly focus on how HR departments can integrate digital technologies—such as automation (including cloud-based services), robotization, artificial intelligence, gamification tools, chatbots, and related systems—into personnel management. This technological wave has attracted strong attention both internationally and within Russia, where researchers have actively examined HR digitalization in domestic organizational practice. Russian scholars have actively examined HR digitalization and automation in recent years (Minina, 2019; Serov & Vasiliev, 2022; Ostrovskaia & Burmistrov, 2022; Evseeva et al., 2021; Zagorskaya, 2023; Osipova & Yaruskina, 2024). However, much of the existing literature remains fragmented and case-based rather than

systematic, largely because the digital HR environment itself is still being formed and standardized in practice. Many publications focus primarily on listing obvious advantages and disadvantages of digital tools and predicting how HR competencies and job requirements may evolve under technological pressure (Serov & Vasiliev, 2022). At the same time, researchers have begun examining factors that drive HR digitalization at modern enterprises and the strategic directions for developing digital HR systems (Ostrovskaia & Burmistrov, 2022).

Some studies go beyond simply listing technologies and actually sharpen the concepts. Minina (2019), for example, does not treat chatbots as just another "digital tool." She defines them more carefully and shows what they really do in HR practice—while also raising uncomfortable but necessary questions about ethics and responsibility. Other scholars explore how artificial intelligence is already changing HR work and decision-making (Evseeva et al., 2021). At the same time, the legal side is becoming harder to ignore: introducing robots and AI into organizations immediately creates problems of regulation, accountability, and governance (Osipova & Yaruskina, 2024). The ethical risks are also widely discussed, especially as technologies begin influencing recruitment, evaluation, and employee monitoring (Matinyan & Albert, 2023). And perhaps the most sensitive issue of all is data. Modern HR systems store huge volumes of personal information, and once that happens, cybersecurity is no longer an "IT issue"—it becomes part of HR responsibility itself. This is why Karzaeva and Karanina (2023) emphasize the importance of data protection, while Neves and Araujo (2023) point out that reliability, access control, and information security remain persistent weaknesses in automation systems.

Among all these technologies, RPA stands out as the most visible and easiest to "translate" into real HR routines. In simple terms, RPA is software designed to build bots that imitate human actions inside digital systems—clicking, copying, transferring data, filling forms, checking databases—especially in workflows that are repetitive, rule-based, and time-consuming. What makes this particularly relevant in Russia is that the RPA market is not dominated by one solution. Instead, several developers compete with different platforms, different strengths, and different claims. For HR managers, that creates a very practical problem: which platform is actually worth choosing? In theory, the answer should come from a reliable selection methodology, which is why Hofmann, Samp, and Urbach (2019) argue that platform choice is itself a research challenge. Many studies solve this by comparing platforms side-by-side, looking for common features and meaningful differences—similar to how Western solutions such as UiPath Studio, Automation Anywhere, and Blue Prism have been evaluated (Issac, Muni & Desai, 2018). But the reality is messier than it looks in methodological models. As Zagorskaya and Ivanova (2024) note, there is no universal selection method that works for every case. The criteria shift depending on what an organization values most—cost, security, compatibility, scalability, speed of implementation, or simply how well a bot fits the daily realities of HR work. In practice, choosing an RPA

platform is less like selecting software from a catalog and more like selecting a long-term partner: once implemented, it shapes how HR processes will function and evolve.

The application of RPA has been studied across many domains, and research indicates that robotization can contribute to cost reduction and operational efficiency—outcomes that may influence both financial position (Tkachuk, 2018) and broader organizational performance indicators (Tkachuk, 2019). Nevertheless, despite increasing attention to RPA, the academic evidence remains uneven with respect to HR coverage. Studies often emphasize the positive effects of automation but rarely show the extent to which HR processes are actually supported or replaced by robots. For example, only limited work exists on the comparative analysis of Russian RPA platforms using defined attributes (Zagorskaya, 2023). In Western-focused evaluations, Nikolaeva and Tukhbatov (2020) assessed automation systems using qualitative indicators such as licensing costs, functionality completeness, market prevalence, compatibility, scalability, and compliance with technological trends. However, even with such contributions, knowledge remains scattered, and there is still insufficient clarity regarding how deeply HR processes are robotized and which HR functions remain outside the reach of RPA tools.

International evidence on automation and labor market transformation adds further urgency to the topic. Western studies suggest that automation and digitalization may generate unemployment risks because technologies can eventually automate entire professions rather than isolated tasks (Arntz, Gregory & Zierahn, 2016; Frey & Osborne, 2013). At the same time, researchers increasingly examine how multiple technologies—RPA, AI, machine learning, and data analytics—interact and affect HR functions such as recruitment, onboarding, employee data management, payroll, performance management, and engagement (Vijai & Mariyappan, 2023). Another rapidly expanding direction is the integration of RPA with AI. Kitsantas, Georgoulas, and Chytis (2024) analyze RPA–AI integration and describe both opportunities and risks across industries including finance, banking, healthcare, and human resources. Similarly, Gunisity Swaroop Raj (2024) links the convergence of RPA with AI/ML, OCR, and NLP to the development of hyper-automation, which enables organizations to manage complex workflows, improve predictive analytics, and transform data usage practices. In addition, the transition from RPA toward Intelligent Process Automation (IPA) involves organizational, technical, and human-centric challenges (Siderska et al., 2023), while implementation projects raise a broad set of technical, psychological, resource, and coordination issues (Kraus, Fißler & Schlegel, 2024; Fißler, Kraus & Schlegel, 2022).

From a strategic perspective, some scholars interpret RPA as more than operational automation: it can also become a tactical tool for competitive advantage when aligned with organizational resources and AI capabilities (Moderno Braz & Nascimento, 2023). In HR-specific modeling, Mohamed et al. (2022) demonstrate the effectiveness of RPA in HRMS contexts by defining relevant components and characteristics and comparing automated

processes with manual workflows. Importantly, however, even where RPA shows strong efficiency outcomes, the authors emphasize that robots are not positioned to replace HR departments entirely but rather to support and strengthen managed HR processes.

Research also reflects the continuing complexity of evaluating RPA platforms. Coaboy et al. (2022), for instance, conducted a comparative platform evaluation in the context of unstable websites, coding and testing automation execution using an XP-based approach. Using Gartner evaluation metrics, they assessed automation platforms based on characteristics such as availability, resource utilization, and automation time, concluding that the IRPA platform achieved the highest overall score under these dimensions. Kim Seung-Hee (2023) similarly raises the problem of inconsistent evaluation criteria and proposes a structured standard for assessing RPA selection through an evaluation breakdown framework. More applied evidence appears in case studies like Patil (2024), which demonstrates the use of RPA in transforming university HR hiring workflows through an onboarding assistant project.

Despite these advancements, opinions remain sharply divided among practitioners regarding the future role of HR robots. Some experts claim that robots will eventually handle most HR processes and function with minimal human control, while others argue that robotization will always remain partial and that managerial judgment will remain fundamentally human (Grinshtein, 2017). Yet the most critical issue is that the limits of robotization in HR remain unclear. Which HR business processes can realistically be transferred to robots? Why is it impossible to automate everything? What criteria determine whether a process is suitable for robotization? These questions are not merely technical; they shape the future of HR work itself. Therefore, it becomes essential to distinguish which HR business processes can be accelerated through robotic automation and, equally, to identify which processes are structurally resistant to RPA implementation and cannot be executed by robots under current technological conditions.

2. MATERIALS AND METHODS

This study is designed to clarify which Human Resource Management (HRM) business processes can currently be implemented through Robotic Process Automation (RPA) and which processes remain beyond the scope of such technologies. In other words, the research does not simply celebrate automation; it draws a boundary line—showing where robots can genuinely assist HR specialists and where HR work remains essentially human.

To achieve this objective, three operational tasks were formulated:

- to examine Russian RPA platforms in terms of their applicability to HR management and HR workflows;
- to identify HR business processes that have already been robotized (i.e., processes realistically performed by HR robots today);
- to determine which HR processes cannot be executed through RPA technologies and therefore cannot be delegated to robotic systems.

Research design and approach

Methodologically, the study follows a descriptive qualitative research design. This approach is appropriate because the work focuses on collecting and interpreting descriptive information rather than manipulating variables or applying experimental intervention. In line with qualitative descriptive research principles, the study emphasizes careful documentation of observed patterns and interpretation of real-world HR automation practices (Rusandi & Muhammad Rusli, 2021).

At the analytical level, the descriptive approach was implemented primarily through literature-based descriptive analysis, which is used to explore and develop an in-depth understanding of the phenomenon being examined—in this case, the robotization of HR processes. This kind of descriptive literature analysis allows the researcher to synthesize findings, extract major tendencies, and interpret the development of an emerging technological practice (Bahasoan, Muhammad, & Marsudi, 2023).

Identification of robotizable and non-robotizable HR processes

To determine which HR processes can be automated now and in the future, the study examined HR process implementations discussed in recent scientific publications, including examples of HRM processes already supported by RPA. In order to differentiate and extract particular HR processes suitable for robotization, the method of induction was applied. This inductive reasoning allowed the study to move from individual documented examples toward a generalized understanding of which types of HR activities are most adaptable to robotic execution.

At the same time, the research also aimed to define the opposite category: HR activities that cannot be transferred to robots. For this purpose, the empirical generalization method was used. This method supports the extraction of shared characteristics across cases, enabling the identification of recurring features of HR processes that resist automation. Based on this analytical logic, the study also engages with assumptions about the future development trajectory of HR robotization.

HR function framework and classification procedure

A crucial methodological step was the selection of a stable functional framework for organizing HR processes. To identify functional HR “units” suitable for RPA integration, the study relied on an established HR function framework used in HRM software platforms—a structure that has been widely applied and is familiar to HR practitioners. This framework allows HR processes to be understood not as isolated actions, but as elements within a structured HR system.

To specify and refine this set of HR functions, a classification method was applied. Classification supported clearer grouping of processes into recognizable HR domains and improved analytical accuracy, especially when comparing automation possibilities across platforms.

Comparative analysis and data sources

Because organizations often need to select RPA solutions that best cover their own HR workflows, the study used comparative analysis of HR robots as an applied method supporting platform selection. Through this comparative design, the study evaluates the functional coverage of HR processes across different RPA developers, allowing conclusions about platform differences and their practical relevance for HR departments.

As factual empirical material, the study collected open-access information from the official websites of seven Russian software developers specializing in HR robotization. These sources represent the real market supply of RPA tools aimed at HR areas, and they form the evidence base used to identify which HR business processes are already supported by robotic solutions.

3. RESULTS

3.1. Analysis of Russian RPA-platforms for HR (Rewritten)

Using the technology and vendor selection portal TAdviser, the study identified seven Russian developers whose RPA platforms are actively positioned for supporting HR management tasks. These developers include HR ELMA 365, Primo RPA, PIX RPA, Robin RPA, SHERPA RPA, ROOMY bots, and ATOM.RITA.

A review of publicly available descriptions on the official websites of these vendors indicates that, despite market competition, their platforms are built around a relatively similar architecture for robot creation and coordination. In general, the RPA ecosystem offered by these developers contains: tools for managing business processes and system interactions; modules for identifying which processes are suitable for robotization (BPM logic); “studio” environments used to build process scripts/scenarios; orchestration tools that coordinate and schedule robots; and finally the robot (bot) itself, which performs the scripted algorithm inside digital systems.

In operational terms, HR robots on these platforms can be divided into three major categories:

Attended robots (computer user assistants), installed directly on employees’ workstations and supporting specialists in routine steps;

Unattended robots (autonomous bots), typically deployed on servers and allowed to interact with systems independently, without constant human presence;

Hybrid robots, combining attended and unattended modes depending on the process logic.

The logic of robot deployment is also described in two strategic directions. In the tactical approach, organizations automate one or a few tasks “as needed,” without long-term planning. This often results in slow, complex, and expensive implementation. In contrast, a strategic approach begins with clear long-term goals, measurable quality and quantity indicators, and a gradual expansion of robot coverage across routine HR workflows.

Based on comparative examination of robots developed by these vendors, the study was able to classify the main areas where HR robots are most actively applied. These include: personnel records and administrative documentation; time tracking; employee adaptation;

employee termination procedures; processing of personnel documents; travel and expense management; employee training and certification; and bonus calculation. Each of these HR areas consists of many processes that HR specialists traditionally perform manually. However, a significant portion of these activities are repetitive, attention-intensive, monotonous, and vulnerable to fatigue-related errors—precisely the type of work that vendors frame as suitable for RPA automation.

Open-access data from developer websites allowed identification of the HR processes already covered by existing robots. The cross-platform comparison results are summarized in Table 1.

Table 1. HR robots of Russian developers

Legend: "+" indicates that the vendor provides HR robots / solutions for the corresponding HR process.

HR areas and robot processes	HR ELMA 365	Primo RPA	PIX RPA	Robin RPA	SHERPA RPA	ROOMY bots	ATOM .RITA
Personnel recruitment							
Generating new applications	+	+					
Monitoring recruiting resources (resume search)	+		+	+			
Tracking vacancy status	+	+					
Candidate database	+	+					
Interview schedule (scheduling interviews)	+	+		+	+		
Candidate interaction	+	+		+	+	+	
Personnel records							
Employee onboarding (document scanning)		+	+	+	+		
Transfer from probationary period					+		
Employee termination		+	+	+			
Employee notifications and		+	+	+			

surveys								
Linking payroll card expenditures to requisitions								+
Formation of payroll; compensation and payment calculations								+
Preparation certificates (2-NDFL, visa, seniority, etc.), statements, orders		+	+	+	+			
Changing staff schedule & organizational structure		+	+	+				
Time tracking								
Time tracking	+	+	+	+	+			
Time sheet management		+	+					
Vacation schedule / sick leave management					+			
Employee adaptation								
Workplace preparation						+		
Creation of accounts		+	+					
Consultation on standard questions					+			
Application of access pass						+		
Familiarization with regulations and internal processes					+			
Travel and expense management		+	+	+				
Training and certification of employees					+			
Employee motivation								

Collecting data for KPI calculation					+		
Employee performance analysis					+		
Bonuses					+		
Reporting and analytics					+		
Report generation					+		
Administration							
Website management	+	+	+				
Document recognition	+	+	+	+			
Document processing	+	+	+	+			
Transferring forms and documents		+	+				
Folder and file management		+	+	+			
OCR text processing			+				
Closing access to information systems				+			
Copying/synchronizing data between web apps and backend systems							+

Source: Compiled by the authors.

3.2. Robotic processes in human resources management

The comparative results presented in Table 1 demonstrate that HR robots are currently concentrated in areas where work can be reduced to clear rules, repetitive actions, and stable digital inputs/outputs. Based on this analysis, several conclusions can be drawn.

First, HR robotization in practice has so far focused mainly on simple routine processes, especially those that repeat frequently and can be described in step-by-step form. Second, once an automation solution is developed for a particular organization, it often becomes a reusable product: customized robot projects generate robot templates that can later be adapted and implemented in other organizations with limited changes.

Third, the public information shared by vendors is still insufficient for a deeper operational assessment. Available platform descriptions do not allow researchers to determine the extent of human involvement in HR robots (for instance, whether robots require manual activation, monitoring, stopping, or corrective intervention). Likewise, it is not

clear whether robotized processes operate in parallel with human HR work or whether robots perform these tasks independently as standalone workflows.

Despite these limitations, a clear trend becomes visible: robotization in HR continues to grow and will increasingly replace employees whose work mainly involves repetitive operations. As HeadHunter's Development Director B. Wolfson expressed at the HR Digital 2019 Summit, recruitment is experiencing stages of accepting digital technologies comparable to "denial, anger, bargaining, depression, and acceptance"—and the current stage is described as bargaining, meaning technologies exist and are used for many tasks, yet doubts still remain.

In terms of HR domains, robotization is most developed in recruitment and personnel accounting/records, because these domains contain many formalizable steps and already include partially standardized data workflows. Comparatively less attention is given to automation of bonus calculation, employee motivation tools, and training/certification—mainly because these areas have only recently entered the automation agenda and organizations still rarely demand deep customization in these segments. Nevertheless, some robotization cases already exist in these domains.

Finally, one HR field stands out as still untouched: talent management. The likely explanation is structural rather than technical—the assessment of talent relies heavily on subjective evaluation and complex judgment, meaning it cannot be easily reduced to algorithmic steps and standardized inputs.

3.3. HR processes that cannot be robotized

A major practical problem is that many companies tend to approach HR robots with unrealistic expectations. In reality, HR robots should be understood as information systems designed to support managers in completing the most formalized part of HR work rather than as full replacements for HR professionals (Grinshtein, 2017).

For an HR process to be transferred to robots, it must meet a set of stable conditions: it needs to be regulated and clearly bounded; all relevant information must be received and delivered in electronic form; tasks must be repetitive; the process should have sufficient duration (so that automation makes economic sense); and there should be a high probability of human error if performed manually. In such cases, robots become highly effective because they execute algorithmic routines without fatigue.

However, HR work includes many processes that cannot be reduced to rules, because they depend on intuition, contextual interpretation, ethical judgment, strategic thinking, and human interaction. Robots cannot "see the whole picture," cannot feel the candidate's personality fit, cannot interpret nonstandard events, cannot adapt instantly to legal changes, and cannot resolve conflicts through human communication.

Therefore, without claiming to provide an exhaustive list, the study identifies a group of HR processes that are currently limited in their susceptibility to full robotic automation. These processes include activities that are difficult to formalize into stable algorithmic

sequences, particularly those requiring individualized approaches, socio-emotional interaction, contextual interpretation, and adaptive responses to non-standard situations, such as direct human-to-human communication during interviews and constructing responses to unexpected questions.

intuitive understanding of whether a candidate fits the organization and its corporate culture;
interpreting “what is meant between the lines” in conversation;
assessing moral qualities of applicants;
coordination processes between HR departments, management, and employees;
setting tasks for HR robots (the robot cannot meaningfully define its own tasks);
interpreting HR results and employee potential based on complex contextual data;
testing candidate reactions in non-standard situations;
evaluation of cognitive flexibility;
selecting recruitment methods and building a selection funnel;
developing evaluation criteria;
managerial decision-making;
monitoring and control of HR processes and robots;
selecting candidates for specialist and managerial positions.

In other words: robots can do the checklist, but they cannot do the judgment. They can run the procedure, but they cannot be the professional.

4. DISCUSSION

The findings of this study align with and extend earlier comparative assessments of RPA solutions, while also highlighting a key limitation of the existing literature: evaluations tend to focus on technical platform characteristics rather than on functional coverage of HR business processes. For instance, Zagorskaya’s (2024) comparative work identified 18 attributes for comparing Russian RPA platforms, yet most of these criteria are primarily technical (e.g., operating systems, platform components, robot design characteristics, programming languages). This technical orientation is clearly relevant for selecting an RPA solution, but it does not sufficiently address the HR manager’s central concern: which HR processes can actually be supported or performed by robots.

A similar approach can be observed in the evaluation of Western robotization systems. Nikolaeva and Tukhbatov (2020) proposed six qualitative criteria—license cost (initial and continuing), market prevalence, completeness of functionality, compatibility with existing IT ecosystems, scalability, and alignment with technological trends—and applied a multi-criteria evaluation method using a trading company case. Such structured evaluation is valuable, yet in practice it still leaves researchers with fragmented evidence, because it measures general platform quality rather than the real depth of robotization across HR domains. In other words, the academic field has paid sufficient attention to the existence of RPA in HR, but the evidence remains scattered when the question becomes how much of HR work is actually covered by robots.

This limitation becomes especially important because professional and public opinions remain polarized regarding the impact of automation on the HR profession. The debate was intensified by Frey and Osborne's (2013) influential argument that technological development could automate entire occupations, not merely isolated tasks. Their occupational computerization framework and estimation model suggested that robots increasingly acquire advanced forms of "dexterity" and broader capability sets, thereby threatening not only manual labor but also professional service work.

Arntz, Gregory, and Zierahn (2016) expanded this logic through a task-based perspective applied across 21 OECD countries, emphasizing that automation risks depend on the distribution and heterogeneity of tasks within occupations. Crucially, they also argued that "technological unemployment" is not inevitable, since firms and workers can adapt. They highlight three limiting factors: (1) substitution may be slowed by economic, legal, and social barriers; (2) workers can retrain and transition to different jobs; (3) technological change can generate new jobs through rising demand for innovations and increased competitiveness. This approach offers a more balanced lens through which the robotization of HR should be understood—not as immediate replacement, but as restructuring of tasks and competencies.

The findings of this study reinforce the task-based perspective on automation (Arntz, Gregory, & Zierahn, 2016), suggesting that robotization in HR primarily affects structured, rule-based tasks rather than entire occupational roles. While early automation forecasts (Frey & Osborne, 2013) predicted broader occupational substitution, the evidence from Russian RPA platforms demonstrates selective automation concentrated in highly formalized HR domains such as recruitment documentation and personnel records. This indicates that HR automation is evolutionary rather than disruptive at the occupational level.

Moreover, the resistance of certain HR processes to automation can be explained through their reliance on tacit knowledge, socio-emotional judgment, and contextual interpretation. Activities such as talent assessment and managerial decision-making involve dynamic cognitive and relational competencies that cannot be fully reduced to algorithmic logic under current technological conditions. Therefore, HR robotization should be interpreted not as a replacement mechanism, but as a reconfiguration of task distribution between human professionals and digital systems.

In contemporary literature, the discussion has widened beyond RPA as an isolated tool. Many scholars consider the combined influence of RPA, artificial intelligence, machine learning, and data analytics on HR functions such as recruitment, onboarding, employee data management, payroll, performance management, and engagement. Under this perspective, robotization becomes part of a broader technological transformation where digital systems increasingly operate as integrated ecosystems rather than separate automation instruments.

A particularly significant trend is the integration of RPA with AI. Kitsantas, Georgoulas, and Chytis (2024) argue that AI-enhanced software robots are capable of automating HR functions such as payroll processing, resume selection and evaluation, matching candidates

to job requirements, interview scheduling, verifying and validating employee records in databases, and systematizing employee performance data. In practical terms, such integration strengthens the automation capacity for routine documentation workflows: processing files and folders, extracting information from external sources, and executing algorithmic sequences with stable rules. This naturally leads to reduced processing time and lower operational costs.

At the same time, a counterpoint remains necessary: even in the most optimistic models, HR robotization is not portrayed as a total substitution of HR departments. Mohamed et al. (2022) stress that robots cannot replace HR professionals as a functional institution but can significantly increase efficiency as supporting tools within managed HR systems. This echoes the position of practitioners who believe robotization will expand across routine HR tasks while leaving complex managerial judgment in human hands.

In summary, the present study contributes to this debate by shifting the focus from platform-level characteristics to process-level coverage. Rather than asking which RPA platform is technically stronger, it attempts to map the HR field itself: identifying HR business processes that can already be matched with existing RPA solutions, clarifying the attributes of routine HR activities that are most suitable for formalization, and emphasizing the HR processes that remain fundamentally non-robotizable. This discussion is particularly important because it helps HR professionals look forward realistically: not through fear-driven narratives of replacement, and not through overly optimistic digital marketing promises, but through an evidence-based understanding of which parts of HR work can be delegated to robots and which will continue to depend on uniquely human competencies.

5. CONCLUSION

This study was conducted to clarify the real boundaries of robotic automation in Human Resource Management (HRM) by analyzing Russian RPA-platforms and mapping which HR business processes can be automated and which cannot. The results show that HR robotization is not an abstract future scenario: it already exists as a practical tool in HR departments. However, it does not transform HR completely; instead, it selectively targets routine operations where work can be formalized into stable steps.

The first conclusion is that the Russian HR automation market already offers a clear set of vendors whose RPA solutions are positioned for HR tasks. The analysis identified seven developers providing HR robots: HR ELMA 365, Primo RPA, PIX RPA, Robin RPA, SHERPA RPA, ROOMY bots, and ATOM.RITA. Their platforms are designed around similar functional logic—robot creation environments, orchestration tools, and bots executing predefined algorithms—while also offering attended, unattended, and hybrid robot models depending on organizational needs.

Second, the comparative evidence indicates that RPA in HR is currently concentrated in functions where processes are repetitive, regulated, and digitally measurable. This explains why robotization is most visible in recruitment and personnel records, as these domains

involve high volumes of standardized documents and predictable workflows (e.g., vacancy monitoring, candidate interaction, interview scheduling, onboarding document scanning, termination procedures, and time tracking). In contrast, areas such as motivation systems, bonuses, and training/certification remain less widely automated, largely because they require more organizational customization and are not always demanded by employers in a standardized form.

Third, the findings emphasize that HR robotization still contains a methodological limitation: the data available from developers does not fully reveal the degree of robot independence. Vendor descriptions rarely clarify whether robots operate autonomously or require constant human control, manual starting/stopping, monitoring, or corrective intervention. As a result, automation in real organizations may function as assisted work rather than full substitution, meaning the robot becomes a high-speed executor of routine actions while humans continue managing and supervising HR flows.

Finally, the study confirms that not all HR processes can be robotized, because many HR activities are fundamentally based on human judgment and social interaction rather than purely technical steps. Tasks involving emotional intelligence, moral evaluation, interpreting implicit meanings, assessing cultural fit, handling non-standard situations, selecting recruitment strategies, developing evaluation criteria, and making managerial decisions remain outside the reach of RPA systems. Therefore, HR robots should be understood as effective information tools that reduce routine workload and error risks—not as replacements for HR professionals, because the core of HR is still human: robots can run the checklist, but they cannot replace judgment.

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