

# Perceived Effects of Robotic Process Automation on Work Tasks and Processes: A Study of an IT Company in the Republic of Serbia

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This paper explores how robotic process automation affects work tasks and processes in an IT company in the Republic of Serbia. The main motive of this paper is to contribute to a more comprehensive understanding of robotic process automation in the workplace, particularly in emerging economies. The research was conducted during 2023 by examining internal documentation and by conducting semi-structured interviews. Research results showed that almost 90% of all respondents stated that their work tasks were rule-based, highly repetitive, with extensive manual labour and a high probability of error. Consequently, they stated that their tasks were meaningless (87.5%), were bored at work (75%), and believed their knowledge and skills were not being used to their full potential (87.5%). The results revealed that the primary perceived advantages of robotic process automation in the IT company were the elimination of boring, repetitive, manual tasks, and human errors. Employees also perceived that they would have more time to deal with customer requests, improve overall customer service and experience, facilitate the implementation of software solutions, and provide new opportunities at work while increasing their skills. This research offers a unique perspective on the implementation of robotic process automation in an IT company. By examining work tasks, processes, and employee perceptions, the research provides valuable insights into the potential benefits and challenges associated with robotic process automation. These findings have practical implications for IT companies seeking to improve efficiency, enhance customer service, and foster a more innovative work environment.

**Keywords:** Business processes, Digital technology, Digitalization, IT industry, Job design

## Introduction

Recent advances in the field of artificial intelligence, machine learning, and robotics have radically transformed the way of working.<sup>1</sup> Robotic Process Automation (RPA) is one of the most significant technological developments that has the potential to profoundly change the way of working and job design. It represents the use of specific technology based on software and algorithms used with the goal of automating repetitive, manual, high-volume tasks based on rules and well-documented logical stages.<sup>2-4</sup> RPA has numerous advantages, including return on investment, cost savings, fewer errors, more time and availability to deal with complex issues and challenges, as well as increased efficiency, quality, and productivity.<sup>5,6</sup> It is evident that the implementation of RPA will be an important aspect of the digital transformation of any organisation<sup>7</sup> that wants to be effective, productive, and flexible in a highly volatile, dynamic, and uncertain environment.<sup>8</sup> However, every

organisational change and new technology has a significant impact on employees. The introduction of RPA impacts the organization and structure of working tasks, and this may result in changing the nature of work.<sup>9</sup>

The purpose of this paper is to investigate the perceived effects of RPA on the work tasks of technical support consultants in an IT company operating in the Republic of Serbia. The IT company was chosen because the IT industry leads the way in the implementation of modern technical solutions and recognizes that employees are a key factor for company success.

## Robotic Process Automation (RPA)

RPA is a rapidly emerging automation technology developed not only to free up employees and spare them routine, monotonous, and repetitive tasks, but also to reduce employee workload, errors, and correctional services, enabling them to increase the quality and efficiency of business operations.<sup>10</sup> Research in organizations with 500 employees found that a significant amount of time is spent on repetitive

tasks on a weekly basis. For example, in Germany, New Zealand, Australia, and the United Kingdom, studies indicated that approximately 5 hours per week are wasted on repetitive tasks.<sup>11</sup> RPA, thus reduces costs, increases scalability, reduces cycle time, automates control, improves accuracy, and ensures compliance with various government requirements and regulations.<sup>12</sup> Other benefits include making processes more agile, efficient, and effective, as well as higher customer satisfaction, improved financial performance, and organizational sustainability.<sup>6,13</sup> Typical criteria for RPA are tasks that are routinely performed, with low cognitive requirements, rare exceptions, and a significant probability of human errors.<sup>14</sup> RPA's primary applications include: automatic data entry into software programs, data modification and migration, e-mail auto responding, online form filling, report generation, automatic invoicing<sup>15</sup>, performing simple calculations, opening attachments, moving files or folders, and extracting information from pdf files or images.<sup>16</sup> These tasks are repeatable, standardised, predictable, rule-based, performed in a stable environment, and require no subjective judgment, creativity, emotions, interpretations, or originality.<sup>13,17,18</sup> Additional criteria for automation are the expenses of automating procedures; if they exceed the cost of manually performed processes, automation is not justified.<sup>12</sup>

Large-scale businesses are at the forefront of RPA implementation. However, medium-sized and small businesses are starting to recognize the benefits of RPA.<sup>19</sup> The number of companies that have implemented or intend to implement RPA in the near future is growing. From 2023 to 2032, the global RPA market is expected to grow at a compound annual growth rate of 37.9%, with the RPA services market reaching USD 66079.34 million by 2032.<sup>(20)</sup> Reasons for concern lies in the fact that many RPA projects fail. In general, between 70% and 85% of transformation initiatives fail for a variety of reasons, the most common of which are a lack of employee engagement and acceptance of change.<sup>21</sup>

Throughout history, it has been proven that employees' first reaction to planned organizational changes is a significant indicator of their later behaviour, attitudes, and acceptance of change.<sup>22,23</sup> Every new technology alters how work is planned, completed, and perceived by employees.<sup>9</sup> If employees' attitudes and beliefs about organizational transformation are positive, their behaviour will also be

positive.<sup>22</sup> RPA is not the exception. While RPA is already an important and attractive topic in business world, there is a lack of theoretical and empirical research in the academic field.<sup>16,24,25</sup> That was the main motive for this research.

### Research Methodology

A case study of an IT company in the Republic of Serbia was carried out to investigate the effects of RPA on technical support consultant tasks. The primary Research Question (RQ) was: What are technical support consultants' perceptions and attitudes toward robotic process automation on their work tasks?

**Plan and Case Selection:** A case study is an appropriate research approach for investigating and analyzing new technology and its impact on an organization and its employees.<sup>7</sup> It implies a holistic approach to a specific issue from multiple perspectives, with the purpose of investigating some unique situations.<sup>26</sup> The IT industry is inherently agile and focused on information and communication technologies and tools; organizations that operate in the IT industry are bearers of new technological solutions; while employees in IT companies are flexible, adaptable, open-minded, and willing to adapt to change.<sup>27</sup> IT companies have recognized that their most significant resources are employees, which is why they place employee satisfaction with working conditions at the top of their priority list.

**Design:** A single case study was applied since the IT company clearly demonstrated its commitment to RPA implementation. According to the framework for RPA implementation projects, which recognizes three phases: initialization, implementation and scaling,<sup>8</sup> the selected IT company is in the initialization phase. This research is the basis for future longitudinal study, with the goal of providing various findings across time and across RPA implementation phases. The selected IT company gave permission to conduct a case study but chose to remain anonymous due to severe competition in the IT industry. As a result, the term "IT company" will be used throughout this paper as a reference.

**Preparation:** During this phase, a research protocol was developed (semi-structured interviews, selection of appropriate interview participants, interview methodologies, interview length, recording and transcribing techniques). Internal documentation and secondary data sources provided additional information on the IT company and its contextual

understanding, contributing to the preparation of interview questions.

Two separate groups of employees took part in the interviewing process. The first group comprised of the IT company's top managers, while the second group consisted of eight full-time employees who work as technical support consultants, one of whom is the team leader. The interviews with top managers were conducted to examine strategic RPA goals and plans. They were asked open-ended questions on what they wanted to accomplish with RPA (what challenges they wanted to solve) and what the expected benefits were. The aim of conducting interviews with technical support consultants was to examine and analyze their perceptions of the effects of a planned RPA on their work tasks. Interviews with technical support consultants were semi-structured, with a pre-determined set of close-ended and open-ended questions to ensure some consistency throughout interviews. According to numerous authors, the key characteristics of tasks appropriate for RPA were used as interview options.<sup>13,17,18</sup> Closed-ended questions used a 5-point Likert Scale, with 1 indicating strong disagreement and 5 indicating strong agreement. The questions were as follows. On a scale of 1 to 5, how much of your tasks are (1) rule-based (standardized); (2) highly repetitive; (3) manual labour intensive; and (4) prone to human error?

The second set of questions was based on the Work Bore-Out Scale,<sup>28</sup> which has a high level of reliability and internal and external validation. The first factor, insufficient workload, was removed from the questions because it was determined during interviews with top managers that technical support consultants have plenty of work to accomplish. The questions focused on under-stimulation, work-related guilt, and incompatibility of personal work values. On a scale of 1 to 5, respondents were asked to rate how much they felt that: (1) their tasks were meaningless; (2) they were bored at work; (3) their knowledge and skills were not being used to their full potential; (4) the working day would never end; (5) they were embarrassed by their workflow; (6) they were disappointed because of the way they worked; and (7) they were in conflict with their values and work reality. The final closed-ended question was as follows: On a scale of 1 to 5, how much do you know about the possible benefits of RPA?

Considering that closed-ended questions have predefined answers that may overlook some crucial

components of RPA, the following open-ended questions were posed during interviews:

- How many tasks do you need to complete daily? What is the nature of these tasks? Are they routine or complex?
- How do you feel when performing your tasks?
- What do you believe are the most essential benefits of RPA for your job?
- Do you see any negative effects of RPA on your job?

To avoid potential subjectivity during interviews, respondents were asked to provide a precise description and practical examples of their responses.

**Data Collection:** Official company documentation (company policies, reports, strategic plans) was used for gaining a basic understanding of the IT company's operating principles, its employee approach, and RPA strategy. Apart from analyzing the IT company's documentation, semi-structured interviews were conducted between January 2023 and June 2023 in order to investigate deeper into the perceived effects of RPA. Interviews were conducted "face-to-face" in the offices of the IT company, with each lasting between 40 and 55 minutes. Interviews were conducted in Serbian language and audio-recorded using the mobile application Smart Voice Recorder (SmartMob), with transcription carried out using the local software solution "*transkriptor*".

**Data Analysis:** After all interviews were completed, the coding technique was used to analyze and interpret the acquired data.<sup>29</sup> Repeated answers were organized into coherent categories. Special emphasis was placed on respondents' theoretical narratives, which represent their real perceptions of RPA. Data analysis was based on grounded theory, with the goal of maintaining a holistic perspective while analyzing the contemporary phenomenon of RPA in its real context.<sup>26</sup>

### Research Results

The IT company's core business is the development and implementation of financial software solutions. It was formed a decade ago and currently employs 30 full-time employees as well as several consultants from different fields who are engaged in various projects. More than two-thirds of employees have completed bachelor's or master's degrees at technical universities, while one-third have completed high school but are currently attending faculties from technical or management fields. The average age of

all employees is 28 years; the oldest is 48, and the youngest is 21 years old. In the IT company, male employees outnumber female employees (75% to 25%). Employees have worked at the IT company for three to ten years. The IT company has formed the following job positions: software engineers, software developers, programmers, technical support consultants, project managers, administrative officers, and consultants who specialize in software installation and customization. They are grouped into three teams: one for software development, another for technical support, and one for management and organization.

Two groups of respondents took part in the interview process. The first group consisted of the company's top management, while the second group consisted of technical support consultants. Table 1 presents basic information about the respondents.

The average age of the respondents was 36 years, with the youngest respondent being 29 and the oldest being 48. Regarding the length of working in the IT company, both top managers have been there for ten years, and they have the longest working experience (25 and 17 years, respectively). Other respondents (technical support consultants and their team leader) have worked with the IT company from three to seven years.

**Interviews with Top Managers of the IT Company**

During interviews with two top managers, it was determined that the primary goal of RPA was to optimize internal procedures and activities in the technical support team. The main difficulty the IT company faced was a high volume of client complaints about the slow response time for resolving submitted requests, issues, and/or problems. In 2022, both top managers attended conferences on the digital

transformation and automation. That was where the idea for the potential benefits of RPA emerged. At the same time, they encountered that one of the IT company's strategic plan objectives was to increase the number of customers. As a result, top managers decided to implement RPA in the technical support team, maintaining in mind all of RPA's benefits, particularly the ability to automate repetitive, routine, rule-based, and standardized tasks, as well as to increase productivity, reduce error rates, and reduce response time to customers' requests. Furthermore, top managers intended to provide employees some free time to work on tasks that would add value and increase customer satisfaction and experience. This approach underscores the fact that customers are among the most essential drivers of automation, especially given that automation has numerous options to increase the customer experience and their relationships with the company.<sup>30</sup>

At the end of 2022, top managers held one meeting with technical support consultants to inform them of RPA's potential and benefits. This approach to organizational transformation has a fair probability of success, having in mind the main message from the Telefónica O2 case study, that it is necessary to inform and engage the entire organization in new software development from the beginning.<sup>31</sup> Successful organizational change necessitates effective and open communication throughout the organization, overall understanding of all organizational implications, as well as employee engagement.<sup>32</sup>

**Interviews with Technical Support Consultants**

During interviews with technical support consultants, it was determined that each consultant is

Table 1 — Basic information about the respondents

| Respondents (R) | Gender | Job position                 | Age (years) | Company tenure (years) | Length of entire working experience (years) | Length of the interview (minutes) |
|-----------------|--------|------------------------------|-------------|------------------------|---|-----------------------------------|
| R1              | Male   | Top manager                  | 48          | 10                     | 25  | 43                                |
| R2              | Male   | Top manager                  | 42          | 10                     | 17  | 48                                |
| R3              | Male   | Team leader                  | 47          | 7                      | 22  | 43                                |
| R4              | Female |                              | 35          | 3                      | 5   | 45                                |
| R5              | Male   |                              | 29          | 3                      | 3   | 43                                |
| R6              | Male   |                              | 31          | 3                      | 3   | 49                                |
| R7              | Male   | Technical support consultant | 30          | 3                      | 4   | 44                                |
| R8              | Male   |                              | 33          | 4                      | 5   | 40                                |
| R9              | Female |                              | 33          | 3                      | 6   | 43                                |
| R10             | Male   |                              | 32          | 4                      | 4   | 45                                |
| Average         |        |                              | 36          | 5                      | 9.4   | 43.9                              |

Source: author's calculations

required to complete between six and ten tasks each day, the majority of which are repetitive and monotonous. Some of the everyday tasks that technical support consultants perform include converting data from many input sources (such as spreadsheets) to a software solution. In general, typical tasks in the team for customer support that can be automated include processing received e-mails and orders and transferring data from one online platform to another.<sup>9</sup>All respondents stated that they are well-informed about RPA's potential benefits and understand its full potential for their job duties and activities.

According to the research results presented in Table 2, almost 90% of all technical support consultants in the IT company stated that their activities are rule-based, highly repetitive, prone to errors and require significant manual labour. Only one respondent stated that his tasks have these characteristics only to a small extent. That respondent is the team leader of technical support consultants, and he is responsible for issues and tasks that are not standardized and pre-programmed; he deals with unique and uncommon tasks, and he possesses tacit knowledge that is difficult to transmit through written rules and procedures.

Regarding the nature of work tasks and job design, research results in Table 3 show that respondents experience under-stimulation because the majority of them feel their tasks are meaningless (87.5%), are bored at work (75%), and believe their knowledge and skills are not being used to their full potential (87.5%). Half of respondents feel the working day would never end, while 87.5% of respondents feel ashamed by their workflow. During interviews, respondents stated that they are uncomfortable discussing their work with friends and family since the tasks they perform are simple and monotonous. Furthermore, respondents feel disappointed with their work because of the type and structure of the tasks (87.5%), and they feel an imbalance between their personal values and work reality (75%).

Comparing the results obtained in this IT company with the results of another study, which comprises the frontline employees who personally interact with clients, it can be determined that approximately one-fifth of the frontline employees was faced with a lack of challenge at their work.<sup>33</sup> Furthermore, there are estimates that 15% to 87% of employees report bored at work at least periodically.<sup>34</sup>

**Answers of Technical Support Consultants on Open-Ended Questions: Perceived Advantages of RPA**

Respondents were asked open-ended questions about the benefits of RPA in order to gather more detailed data. Following the interviews, all advantages stated by respondents were coded, and the number of respondents (R) mentioning each advantage was determined. The results are presented in Table 4.

All respondents stated a desire to minimize boring, repetitive, and manual tasks, as well as the possibility of errors. They sometimes make errors while performing repetitive and monotonous tasks for extended periods of time during the day.

Table 2 — Answers regarding key characteristics of work tasks

| Characteristics of work tasks | Respondents (R)             |
|-------------------------------|-----------------------------|
| Rule based                    | R4, R5, R6, R7, R8, R9, R10 |
| Highly repetitive             | R4, R5, R6, R7, R8, R9, R10 |
| Prone to errors               | R4, R5, R6, R7, R8, R9, R10 |
| Manual labour intensive       | R4, R5, R6, R7, R8, R9, R10 |

Source: author' calculations

Table 3 — Key characteristics regarding work tasks of technical support consultants

| Characteristics  | Respondents (R)             |
|--|-----------------------------|
| Feel that my tasks are meaningless                               | R4, R5, R6, R7, R8, R9, R10 |
| Feel bored at work   | R5, R6, R7, R8, R9, R10     |
| Feel that my knowledge and skills are not used to full potential | R4, R5, R6, R7, R8, R9, R10 |
| Feel like the working day will never end                         | R7, R8, R9, R10             |
| Feel ashamed by my workflow                                      | R4, R5, R6, R7, R8, R9, R10 |
| Feel disappointed due to the tasks and way of working            | R4, R5, R6, R7, R8, R9, R10 |
| Feel an imbalance between my values and work reality             | R5, R6, R7, R8, R9, R10     |

Source: author' calculations

Table 4 — Perceived advantages of RPA in the IT company

| Advantages  | Respondents (R)         |
|---|-------------------------|
| Elimination of boring, repetitive, and manual tasks | All respondents         |
| Elimination of errors                               | All respondents         |
| Dealing with more customer requests                 | R3, R4, R5, R6, R9, R10 |
| An improved response rate to customer requests      | R3, R4, R5, R6, R9      |
| New opportunities at work                           | R3, R4, R6, R8          |
| Easier implementation of software solution          | R6, R7, R9              |
| Increased other skills                              | R4                      |
| Improved customer experience                        | R10                     |

Source: author' calculations

- “After about two or three hours of manual labour, I become bored and lose concentration. Then I make some unintended errors. Error correction takes a long time and sometimes requires the intervention of software engineers. I believe RPA will eliminate all possible errors and save my time and energy.” – Respondent 4
- “The most tedious aspect of my job is having to double, sometimes triple-check, and verify input data in a software system. This is quite frustrating for me. I cannot wait for RPA to get rid of these tasks.” – Respondent 5
- “I once had a client who called me several times to inquire about the status of his request, and I spent days manually inputting the data, even while on the phone. That completely distracted me, and I had to double-check where I should start again. I am hoping that the RPA will change that and provide me more free time to complete some interesting and challenging tasks.” – Respondent 8

Those results emphasized that respondents have a strong desire to minimize their involvement in repetitive, monotonous, and manual tasks, as well as to reduce the incidence of errors associated with these tasks. The results revealed that respondents frequently encounter issues with focus and accuracy when engaged in prolonged periods of such tasks. For instance, one respondent stated that manual data entry over several hours leads to diminished concentration and increased likelihood of mistakes, which subsequently require time-consuming corrections and sometimes the intervention of other colleagues. This comment was also supported by Respondents 5 and 8 who highlighted the frustrations of double and triple-checking data entries and the negative impact on their productivity and job satisfaction. Obtained results underscored the importance of aligning automation strategies with employee needs and expectations, ensuring that RPA implementations are designed to enhance both operational efficiency and employee satisfaction.

Out of the total number of respondents, 75% believed that dealing with more customer requests will be a significant benefit of RPA, while 62.5% believed that RPA will result in faster responses to customers’ requests. Furthermore, 50% of respondents believed that RPA would create new work opportunities, while 37.5% believed that it will make it easier to implement software solution.

- “I have got a few ideas for additional software functionality and features that will benefit customers. But I do not have time to sit down and think about them carefully, because I have to do a lot of monotonous and boring tasks over and over.” – Respondent 9
- “I expect that RPA will reduce the amount of time I spend on repetitive and monotonous tasks. As a result, I will have more time to work on significant and important software improvement activities.” – Respondent 10

Respondent 9's comment regarding the inability to focus on developing new software functionalities due to the burden of monotonous tasks highlighted a key benefit of RPA: the automation of routine tasks can enable employees to concentrate on more strategic and innovative tasks and activities. By automating repetitive and time-consuming tasks, RPA will allow employees to dedicate more effort to designing and improving software, potentially leading to more effective and customized solutions for customers. This aligns with the broader finding that RPA is expected to provide new opportunities for professional development and creativity, as evidenced by the 50% of respondents who believe RPA will create new work opportunities. The findings suggest that RPA not only addresses operational inefficiencies but also supports professional growth and innovation, making it a valuable tool for organizations aiming to enhance both customer satisfaction and employee engagement.

**Answers of Technical Support Consultants to Open-Ended Questions: Perceived Disadvantages of RPA**

To thoroughly study and analyze the perspectives and attitudes of technical support consultants, the final question focused on the perceived disadvantages of RPA. The answers are presented in Table 5.

More than 60% of respondents (62.5%) stated the loss of control over their work as one of the disadvantages of RPA.

Table 5 — Perceived disadvantages of RPA in the IT company

| Disadvantages   | Respondents (R)    |
|---|--------------------|
| Loss of control over work   | R3, R4, R5, R6, R9 |
| Fear of job loss  | R3, R4, R5, R6     |
| Reallocation to new tasks and activities                            | R6, R7, R10        |
| The need to acquire new skills for new tasks                        | R7, R10            |
| Fear of losing contact with customers and established relationships | R8, R9             |

Source: authors’ calculations

- *“I am concerned that some automatic system will take complete control of my work. If I lose sight, I will be unable to respond appropriately to customer requests.”* – Respondent 3

This result underscores a critical issue in the adoption of RPA: the potential erosion of direct control and personal engagement in work processes. The majority of respondents are worried about being sidelined by automation, which could impair their ability to make timely decisions and respond to unexpected situations. When automation handles many tasks, employees might find themselves less involved in day-to-day operations. This can impact their sense of purpose and engagement with their work. That is why company needs to carefully implement RPA to ensure that employees retain adequate control and involvement. This might include creating systems that allow for human supervision, easy intervention, and keeping employees involved in decision-making process.

The research results that 50% of respondents are concerned about job loss due to RPA presents a nuanced view of the impact of automation on employment. This finding reflects a significant apprehension about job security, even as employees acknowledge that the company's strategic goals, such as increasing the number of customers, may mitigate these concerns. Respondent 6's comment captured this dual perspective: excitement about the potential benefits of RPA was tempered by concerns about its possible negative effects on their careers. This highlighted a common tension where employees have seen both the promise of technological advancement and the associated risks.

- *“When I consider all of the potentials of RPA, I am both excited and concerned about my career. However, when I consider the company's long-term goals, I realize that RPA is not negative for me or my work.”* – Respondent 6

A relatively small proportion of respondents, 37.5%, perceive reallocation to new tasks and activities as one of the disadvantages of RPA. Additionally, 25% of respondents perceive the need to acquire new skills for emerging tasks as one of the disadvantages. The concern expressed by respondents regarding the need to acquire new skills reflects a broader issue of adaptation and professional development in the context of automation. While RPA is often associated with increased efficiency and the reduction of monotonous tasks, it also introduces

new responsibilities that require employees to update their skills. This need for continuous learning and adaptation can be viewed as a disadvantage, particularly for those employees who may feel overwhelmed by the prospect of mastering new competencies. Respondent 7's comment illustrated this anxiety. The respondent feared that transitioning to new tasks for which they lack prior experience or knowledge could lead to significant stress. This apprehension underscored the challenge of adapting to new roles, especially when employees have accustomed to their current responsibilities and are uncertain about their ability to meet the requirements of new tasks.

- *“I am afraid that managers will assign me to new tasks for which I lack the necessary knowledge and skills. That would be extremely stressful for me because I became accustomed to these tasks.”* – Respondent 7

Finally, only a quarter of respondents expressed concern about losing contact with customers and established relationships with them. The concern articulated by Respondent 9 reflects a broader issue: the fear that automation could disrupt valuable communication channels, which are crucial for understanding customer needs and forecasting product changes. As a result, it is essential to ensure that automation tools are implemented in a way that preserves or even strengthens customer engagement.

- *“I am concerned that RPA will have a detrimental influence on my customer relationships. If I lose communication with customers, I will be unable to forecast all modifications to the product.”* – Respondent 9

Addressing these challenges through thoughtful implementation and support strategies will be crucial for maximizing the benefits of RPA and ensuring a successful transition for both employees and the organization. Successful RPA implementation requires a strategic approach that balances automation benefits with the human elements of work. Organizations should ensure that RPA is integrated in a way that enhances overall productivity while preserving or improving employee engagement and customer relationships.

### Discussion of Research Findings

RPA's success is highly dependent on how it is implemented and used. According to the findings of

the research, technical support consultants in the IT company are not experiencing a lack of work. Furthermore, interviews with top managers revealed that they had a high volume of job responsibilities and activities on a daily basis. Under-stimulation exists in the IT company due to multiple monotonous, boring, repetitive, highly standardised, and routine tasks that respondents perceive as meaningless. Work-related guilt is very prevalent in the IT company. Respondents feel ashamed because of the nature of their job responsibilities and duties. When friends and family ask them to explain their workday, they find it unpleasant. Furthermore, the incompatibility of personal and professional values is evident in the IT company. Given that respondents are well-educated (the majority have finished faculties) they want to take on more stimulating, challenging and interesting tasks.

Respondents expect RPA will release them from highly structured, standardized, repetitive, monotonous, and manual tasks, allowing them to focus their efforts on complex, non-standardized, non-routine tasks that need creativity, analytical, and problem-solving abilities. Respondents understand the importance of engaging in challenging and complex tasks that allow them to continuously improve their skills and knowledge for future professional development. They consider RPA as a support tool that enables more efficient task management and job design, rather than a threat that will replace human labour.

Overall findings from the conducted research are given in Fig. 1.

The results obtained in this research regarding the positive attitude of technical support consultants toward RPA implementation are not surprising given

their excellent digital and technical skills. Positive attitudes toward planned RPA may be attributed to the fact that technical support consultants are young, well-educated, and naturally oriented to innovative technological solutions. They are excited about changes and willing to accept them. Organizations that wish to achieve long-term success with RPA implementation require employees who have a positive attitude about the technology.

According to other studies on this topic, many companies are concerned about what they will achieve after implementing RPA. The effects of RPA implementation cover many different areas, including employee satisfaction and general well-being.<sup>25</sup> Other studies also revealed that the primary benefits of RPA are more insightful work (more complex and meaningful tasks), development of new skills, faster process execution, lower error rate, standardization and improvement of processes.<sup>16,33,35</sup> The findings of this research are consistent with practice, which has demonstrated that during RPA, employees frequently recognize that previous jobs were physically demanding and monotonous, and that they now have the opportunity to conduct more creative and challenging activities with a greater degree of responsibility.<sup>36</sup> According to studies, the implementation of RPA may increase employee job satisfaction by letting them to focus on more value-added activities.<sup>19</sup> For example, in a study conducted in banks, results showed that employees pointed out that they may use their human brains more constructively because RPA takes away monotonous duties.<sup>25</sup> Another study, conducted in facilities for food and beverage preparation also revealed that robotic systems execute routine and simple tasks, allow employees to focus on more complex tasks, are faster and more efficient, while providing significant

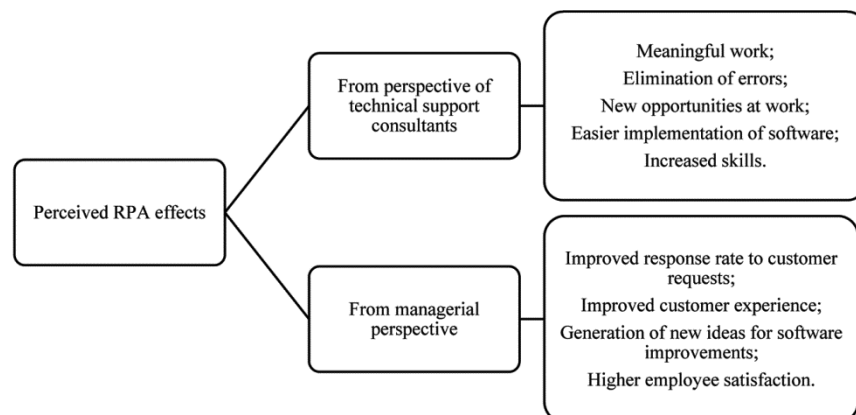


Fig. 1 — Perceived effects of RPA in IT company

cost savings.<sup>37</sup> From that standpoint, RPA has a lot of potential for increasing employee satisfaction and experience. Furthermore, successful RPA increases the availability of employees, allowing them to give better customer service.<sup>38</sup> During their work, technical support consultants gather useful information from customers about potential improvements of implemented software systems. Consequently, it is crucial for companies to build and maintain positive relationships between technical support consultants and customers.<sup>39</sup>

### Conclusions

The results of conducted research revealed that RPA in the IT company in the Republic of Serbia could significantly reduce the burden of highly structured, standardized, repetitive, monotonous, and manual tasks which are prone to human errors. RPA has the potential to provide meaningful work for employees, new career opportunities, smoother software implementation, and enhanced skills. It can enhance both employee and customer satisfaction and drive operational efficiency of the entire company. This paper is accompanied by certain limitations. Obtained results are limited to one IT company and cannot be generalized to other companies and industries. Furthermore, participants' responses were based on their perceptions, not actual experiences. For future research more respondents and companies from various industries and countries could be included. It would be valuable to investigate the overall impact of RPA after its implementation in the IT company and its impact on customer satisfaction and experience.

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