

LEADERSHIP APPROACHES IN MANAGING AI-DRIVEN PROCESS AUTOMATION FOR SMALL AND MEDIUM-SIZED ENTERPRISES

Aleksandar M. Damnjanović¹, Milan D. Rašković², Dušan M. Janković³

¹Faculty of Business and Law, MB University, Belgrade, Serbia, e-mail: adm.tfc@gmail.com

²Faculty of Business and Law, MB University, Belgrade, Serbia, e-mail: milan.raskovic@bureaucube.com

³Faculty of Business and Law, MB University, Belgrade, Serbia, e-mail: dusanjankovic6@gmail.com



Abstract: The analysis conducted in this paper aims to enhance the understanding of leadership roles in managing human resource automation changes in small and medium-sized enterprises (SMEs). A prerequisite for this analysis was the development of descriptive statistical parameters to organize collected data based on common sample characteristics, particularly in the context of automation and its impact on human resource management. Various statistical learning methods were applied throughout the paper to analyze and interpret the variables required for this level of research. The analysis followed successful data collection through surveys conducted within SMEs, along with data cleaning and validation. The data were gathered to explore the changes brought about by automation, specifically the impact these changes have on leadership roles in human resource management. Special attention was given to analyzing employee skills and knowledge, as well as how leadership can facilitate the transition to automated systems. The process involved identifying and analyzing variables based on survey responses, with the goal of confirming the research hypotheses. Finally, statistical tests were employed to determine data patterns and assess the effects of leadership on the success of automation initiatives in SMEs. This research provides valuable insights into how effective leadership can smooth the transition to automated processes in human resource management within the SME sector.

Keywords: Process automation, AI, data, SME, leadership

Field: Technical and technological sciences

1. INTRODUCTION

The rapid advancement of automation technologies has created significant changes in how organizations operate, particularly in the realm of human resource management (HRM). Small and medium-sized enterprises (SMEs), often characterized by limited resources and more agile operations compared to large corporations, are now increasingly integrating automation into their HR processes. This shift is driven by the potential of automation to streamline workflows, enhance productivity, and reduce operational costs. However, while the technological benefits are evident, the transition to automated systems presents a unique set of challenges, particularly in the domain of leadership and change management (Avolio, 2013).

Leadership plays a pivotal role in the successful implementation of automation in HRM. The complexities associated with introducing new technologies into established business processes necessitate strong leadership to guide teams through the transition. Leaders must not only facilitate the adoption of automation tools but also ensure that employees remain engaged, motivated, and adequately prepared for the new working environment. In SMEs, where the workforce is often smaller and more closely knit, leadership's influence on organizational change becomes even more pronounced. Leaders in these enterprises are directly responsible for managing resistance to change, addressing skill gaps, and fostering a culture of continuous learning and adaptation.

This paper focuses on the role of leadership in managing human resource automation in SMEs. Although there is a wealth of literature on leadership and change management in larger organizations, there is a notable gap when it comes to understanding how these dynamics play out in smaller enterprises, where resources and personnel are often limited. By examining the specific challenges that leaders in SMEs face during automation transitions, this research seeks to shed light on effective leadership strategies that can support successful change management in this context.

One of the key challenges in the automation of HR processes is the potential disruption to traditional roles and responsibilities. Automation can fundamentally alter how tasks are completed, shifting the focus from manual, repetitive tasks to more strategic, value-added activities. For employees, this often means a significant change in their job functions, requiring new skills and a shift in mindset. Leaders, therefore, must be equipped to manage these transformations, ensuring that the workforce is prepared to embrace

¹Corresponding author: adm.tfc@gmail.com



the changes rather than resist them. This involves clear communication, training, and a supportive work environment that encourages adaptability and innovation.

The success of automation in HRM is also closely tied to the ability of leaders to manage the emotional and psychological aspects of change. Fear of job loss, uncertainty about new technologies, and concerns about the relevance of one's skills can all contribute to resistance among employees. In SMEs, where individual contributions can have a more direct impact on overall business outcomes, the stakes are even higher. Effective leaders in these settings must demonstrate empathy, provide reassurance, and actively involve employees in the change process to minimize resistance and foster a sense of ownership (Bass, 1990).

This paper presents an analysis of leadership's role in managing automation transitions in SMEs, with a focus on HRM processes. Using data collected through surveys in SMEs, the study explores the impact of automation on HR functions and the corresponding leadership strategies required for successful implementation. Through the application of statistical methods, this research identifies key variables that influence the success of automation initiatives and examines how different leadership styles can facilitate or hinder these efforts.

In conclusion, as SMEs continue to adopt automation technologies, the role of leadership in guiding these changes becomes increasingly critical. This research aims to provide insights into the specific leadership approaches that are most effective in ensuring a smooth transition to automated HR systems, contributing to the broader understanding of change management in the context of technological innovation in SMEs.

2. LITERATURE REVIEW

Automation in human resource management (HRM) presents a unique set of challenges for leaders in small and medium-sized enterprises (SMEs). As technological changes disrupt traditional processes, leaders must navigate not only operational transformations but also the emotional, psychological, and skill-based shifts that employees experience. Leadership becomes the linchpin of successful automation, and the approaches leaders take directly affect how smoothly the transition occurs and how well employees adapt to new systems. This section explores several key leadership strategies that can optimize the automation process: emotional intelligence, strategic planning, transparent communication, and comprehensive employee training and support.

2.1 Emotional Intelligence and Employee Well-being During Automation

Leaders with high emotional intelligence (EI) are critical in guiding employees through the emotional turbulence that often accompanies automation. The introduction of new technologies can evoke a range of responses from employees, including anxiety, fear of job loss, and resistance to change. Leaders with strong EI are better equipped to understand and address these emotions, helping to reduce stress and facilitate smoother transitions (Becker, 2009).

A key aspect of emotional intelligence is empathy—the ability to put oneself in others' shoes and understand their feelings. During the automation process, employees may feel overwhelmed by the changes and uncertain about their future roles. Leaders who demonstrate empathy can better respond to these concerns, offering reassurance and fostering a sense of security. This, in turn, reduces resistance to change as employees feel understood and supported by their leaders.

Furthermore, effective communication, which is another facet of emotional intelligence, plays a crucial role in building trust between leaders and employees. When leaders communicate openly and frequently, addressing employees' concerns and providing clarity about the automation process, they help reduce uncertainty. This trust-building contributes to greater acceptance of new technologies, as employees are more likely to embrace change when they feel that leadership has their best interests at heart (Brynjolfsson and McAfee, 2014).

The ability of emotionally intelligent leaders to manage workplace stress also impacts the overall organizational culture. By fostering a supportive and positive work environment, they encourage employees to view automation as an opportunity for growth rather than a threat. This shift in mindset is essential for ensuring long-term success in adopting new technologies within HRM processes.

2.2 Strategic Planning for Effective Automation Implementation

In addition to emotional intelligence, strategic leadership is another crucial factor in the success of HR automation. Leaders who adopt a strategic approach to planning and implementation can more effectively manage the complexities of transitioning from manual to automated systems. A well-thought-out strategy involves setting clear goals, analyzing available resources, and anticipating potential challenges that may arise during the automation process (Caruso and Salovey, 2004).

Strategic leaders begin by defining the objectives of automation in alignment with the overall business goals. Whether the goal is to improve efficiency, reduce costs, or enhance decision-making capabilities within HR, having a clear vision allows leaders to guide the organization in the right direction. This clarity also helps employees understand the purpose behind the changes, which can reduce resistance and improve buy-in.

Resource allocation is another key component of strategic leadership in automation. Leaders must assess both human and technological resources to ensure the organization is equipped to handle the transition. This includes not only selecting the right automation tools but also ensuring that employees have the necessary skills and support to use these tools effectively. Strategic leaders will often conduct a gap analysis to determine where additional resources or training may be needed, thereby minimizing disruptions during the transition.

Strategic planning is essential for the successful implementation of automation technologies in small and medium-sized enterprises (SMEs). A well-defined strategy provides a roadmap that aligns automation efforts with the organization's overall goals, ensuring that resources are allocated effectively and that the anticipated benefits are realized. Leaders must begin by conducting a thorough assessment of current processes, identifying areas where automation can yield the greatest impact, such as reducing manual tasks, improving efficiency, or enhancing data accuracy (Chamorro-Premuzic, 2020).

Setting clear objectives is a critical component of strategic planning. These objectives should be specific, measurable, achievable, relevant, and time-bound (SMART), allowing organizations to monitor progress and make necessary adjustments along the way. Additionally, leaders must consider the potential challenges associated with automation, such as resistance to change, skill gaps, and integration issues with existing systems. By anticipating these challenges and developing mitigation strategies, organizations can enhance the likelihood of successful implementation.

Moreover, engaging stakeholders throughout the planning process is crucial. Involving employees in discussions about automation can foster buy-in and generate valuable insights. By adopting a strategic approach to planning and implementation, organizations can ensure that automation initiatives are executed smoothly, ultimately leading to improved operational efficiency and competitive advantage (Davenport and Ronanki, 2018).

Anticipating challenges is an integral part of strategic planning. Leaders who consider potential obstacles, such as employee resistance, technological glitches, or budget constraints, can develop contingency plans to address these issues before they become major roadblocks. By preparing for these challenges, strategic leaders ensure a smoother and more efficient transition to automation, ultimately leading to better outcomes for both employees and the organization (Day and Antonakis, 2012).

2.3 Transparent Communication and Employee Involvement

Transparency in communication is another critical factor in managing the human side of automation in SMEs. Leaders who provide clear, open, and honest communication throughout the automation process help build trust and reduce uncertainty among employees. By keeping employees informed about the reasons for automation, the expected changes, and how these changes will affect their roles, leaders can alleviate many of the fears and anxieties associated with technological transformation.

One of the most effective ways to foster transparency is by involving employees in the decision-making process. When employees feel that they have a voice in shaping how automation will be implemented, they are more likely to feel a sense of ownership and responsibility for the success of the new systems. This increased engagement can lead to greater motivation and a more positive attitude toward change. Employees who understand the benefits of automation and have had input in the transition process are more willing to adopt new working methods and technologies (Goleman, 2020).

In SMEs, where leaders often have closer relationships with employees, this transparency and involvement are particularly important. Leaders who actively seek employee feedback and involve them in planning discussions not only increase engagement but also gain valuable insights into potential issues or areas for improvement that may not be visible from a top-down perspective (Goleman, 2000).

Transparent communication plays a vital role in the successful implementation of AI-driven automation within organizations, particularly in small and medium-sized enterprises (SMEs). Leaders who maintain open, clear, and consistent communication throughout the automation process foster trust and reduce employee anxiety. Transparency ensures that employees understand the reasons behind adopting AI technologies, the anticipated changes in workflows, and how these changes will impact their roles. This clarity helps dispel fears and misconceptions, enabling employees to focus on adapting to new technologies rather than worrying about potential threats, such as job displacement.

Involving employees in the automation decision-making process further enhances transparency and fosters a sense of ownership. When employees are included in discussions about the selection and

implementation of AI tools, they feel valued and more engaged with the process. Their involvement can also provide valuable insights, as employees who work directly with processes targeted for automation often have a deep understanding of operational challenges and potential areas for improvement. By seeking employee feedback and incorporating their suggestions, leaders can increase motivation and acceptance of new systems.

This collaborative approach creates a sense of shared responsibility, where employees are not merely passive recipients of change but active participants in shaping the future of the organization, leading to smoother transitions and improved outcomes.

Moreover, transparent communication helps to prevent misunderstandings and misinformation, which can easily derail the automation process. By providing regular updates and being available to answer questions, leaders ensure that employees are fully aware of what is happening and why, fostering a collaborative environment where everyone works together toward the common goal of successful automation (Huang, 2018).

3. DISCUSSION OF RESEARCH RESULTS

Finally, a key aspect of leadership during the automation process is ensuring that employees receive adequate training and support to adapt to new technologies. Automation often requires employees to develop new skills or adopt different ways of working, and without proper training, this can lead to frustration, decreased productivity, and errors.

Leaders who prioritize training as part of the automation process help employees transition more smoothly to the new systems. By offering continuous education and making resources readily available, leaders enable employees to increase their proficiency with automated tools, thereby enhancing productivity and minimizing mistakes. This not only benefits individual employees but also leads to better overall business outcomes, as the organization can fully leverage the advantages of automation (Kotter, 1996).

Support goes beyond technical training; it also includes emotional and psychological support. Leaders should recognize that learning new systems can be stressful, particularly for employees who may not feel confident in their technical abilities. By creating a supportive environment where employees feel comfortable asking questions and seeking help, leaders can reduce anxiety and build a culture of continuous learning.

Training employees to effectively use AI-driven process automation is critical to ensuring the success of such initiatives, particularly in small and medium-sized enterprises (SMEs). As AI continues to transform traditional business processes, employees need to acquire new skills to adapt to the changing landscape. A well-structured training program not only enhances employees' technical proficiency but also fosters a sense of confidence and security in their ability to work with AI technologies (Lewis and Heckman, 2006).

Training programs should focus on both the practical and theoretical aspects of AI-driven automation. On the practical side, employees must learn how to use specific AI tools and software integrated into their daily tasks. This involves hands-on training sessions, guided by experts, where employees can practice using the technology in real-world scenarios. Theoretical training, on the other hand, should address the broader implications of AI, helping employees understand how automation improves workflows, enhances decision-making, and supports overall business goals.

Beyond technical skills, training should also include soft skills such as problem-solving, adaptability, and continuous learning. As AI technologies evolve, employees must be prepared to adapt and upskill regularly. By providing ongoing training and resources, leaders ensure that employees remain agile and fully equipped to leverage AI for improved productivity and innovation in the workplace (Manuti and De Palma, 2014, McKinsey, 2020).

Additionally, leaders can establish mentoring programs or create teams of early adopters to assist their colleagues in adapting to the new technology. These peer support structures can accelerate the learning process and help create a positive attitude toward the changes (Nadkarni and Prugl, 2021).

4. CONCLUSION

The success of automation in human resource management, particularly in SMEs, is heavily dependent on effective leadership. Leaders with high emotional intelligence can address the emotional needs of employees during the transition, while strategic leaders ensure that the automation process is carefully planned and executed. Transparent communication and active employee involvement foster a

sense of trust and ownership, reducing resistance to change. Finally, providing comprehensive training and support enables employees to adapt more easily to new technologies, leading to better business outcomes. By combining these leadership strategies, SMEs can not only implement automation more smoothly but also create a work environment that is prepared for future technological advancements. This has also been confirmed by Northouse (2019) and Westerman (2014) in their respective research.

In the evolving landscape of human resource management, especially within small and medium-sized enterprises (SMEs), automation presents both significant opportunities and challenges. The role of leadership is central to navigating this transformation successfully. Leaders with high emotional intelligence can address the emotional and psychological needs of employees, reducing stress and resistance during the automation process. By demonstrating empathy, clear communication, and support, these leaders foster a work environment where employees feel valued and secure amid change (PwC, 2019).

Strategic leadership is equally critical in ensuring the successful implementation of automation. Leaders who plan carefully, anticipate challenges, and align automation goals with broader organizational objectives create a smoother transition and optimize the benefits of new technologies. Transparent communication and active employee involvement further enhance engagement, creating a sense of ownership and reducing resistance.

Finally, providing ongoing training and support ensures that employees have the skills and confidence to adapt to new systems, enhancing productivity and minimizing errors. Through a combination of emotional intelligence, strategic planning, transparency, and continuous support, leaders in SMEs can drive the successful adoption of automation, ultimately leading to improved efficiency, employee satisfaction, and business outcomes (Senge, 2006). Effective leadership is the key to turning the challenges of automation into opportunities for long-term growth and innovation.

REFERENCES

- Avolio, B. J., & Yammarino, F. J. (2013). *Transformational and Charismatic Leadership: The Road Ahead*. Emerald Group Publishing.
- Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational Dynamics*, 18(3), 19–31.
- Becker, G. S. (2009). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. University of Chicago Press.
- Brynjolfsson, E., & McAfee, A. (2014). *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. W.W. Norton & Company.
- Caruso, D. R., & Salovey, P. (2004). *The Emotionally Intelligent Manager: How to Develop and Use the Four Key Emotional Skills of Leadership*. Jossey-Bass.
- Chamorro-Premuzic, T., & Frankiewicz, B. (2020). Does Higher Emotional Intelligence Lead to Higher Performance? *Harvard Business Review*.
- Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, 96(1), 108–116.
- Day, D. V., & Antonakis, J. (2012). *The Nature of Leadership*. Sage Publications.
- Goleman, D. (2020). *Emotional Intelligence: Why It Can Matter More Than IQ (25th Anniversary Edition)*. Bloomsbury Publishing.
- Goleman, D. (2000). Leadership That Gets Results. *Harvard Business Review*.
- Huang, M.-H., & Rust, R. T. (2018). Artificial intelligence in service. *Journal of Service Research*, 21(2), 155–172.
- Kotter, J. P. (1996). *Leading Change*. Harvard Business Review Press.
- Lewis, L., & Heckman, R. (2006). Talent management: A critical review. *Human Resource Management Review*, 16(2), 139–154.
- Manuti, A., & De Palma, P. D. (2014). *Why Human Capital Is Important for Organizations: People Come First*. Palgrave Macmillan.
- McKinsey & Company. (2020). *The Future of Work after COVID-19*. McKinsey Global Institute.
- Nadkarni, S., & Prügl, R. (2021). Digital Transformation: A Review, Synthesis and Opportunities for Future Research. *Management Review Quarterly*, 71(2), 233–274.
- Northouse, P. G. (2019). *Leadership: Theory and Practice (8th ed.)*. Sage Publications.
- PwC. (2019). *Upskilling for Digital Transformation: The Future of Work*. PwC Global.
- Senge, P. M. (2006). *The Fifth Discipline: The Art & Practice of The Learning Organization*. Doubleday.
- Westerman, G., Bonnet, D., & McAfee, A. (2014). *Leading Digital: Turning Technology into Business Transformation*. Harvard Business Review Press.

