



Navigating the Transformation: HRM and Banking 5.0

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ABSTRACT: As the financial landscape undergoes a profound metamorphosis towards Banking 5.0, characterized by hyper-connectivity, pervasive AI, and a renewed focus on sustainability, Human Resource Management (HRM) finds itself at a pivotal crossroads. This article delves into two critical imperatives for HRM within this transformative era: workforce transformation and seamless human-machine collaboration.

Workforce transformation necessitates a delicate rebalancing act. Strategic streamlining and capital integration must coexist with investments in reskilling and upskilling initiatives to ensure a future-proof talent pool attuned to the demands of Banking 5.0. This necessitates navigating the intricate interplay between automation's efficiency and the irreplaceable value of human ingenuity, adaptability, and creativity. Human-machine collaboration emerges as the cornerstone of success in Banking 5.0. By maximizing the complementary strengths of humans and machines, Banking 5.0 unlocks unparalleled potential for innovation, personalized customer experiences, and enhanced productivity.

This article offers HR professionals and banking leaders a practical roadmap for navigating this pivotal transition. It proposes actionable strategies for workforce transformation, human-machine collaboration implementation, and the cultivation of a future-proofed talent pool. By embracing these imperatives, financial institutions can not only survive but thrive in the new financial era, shaping a more sustainable, efficient, and human-centred future for Banking 5.0.

KEYWORDS: Banking 5.0, human resource management, reskilling, AI, automation, sustainability, human-machine collaboration, organizational transformation, fintech, digital banking.

1. INTRODUCTION

The financial landscape is on the cusp of a momentous transformation, propelled by the revolutionary forces of Industry 5.0 (Brynjolfsson & McAfee, 2014). At the heart of this metamorphosis lies Banking 5.0, a paradigm shift characterized by hyper connectivity, AI integration, and a renewed focus on sustainability (World Economic Forum, 2020). This evolution demands a parallel restructuring of Human Resource Management (HRM) practices,

necessitating a strategic shift towards workforce transformation and seamless human-machine collaboration (McKinsey Global Institute, 2022).

This paper delves into the intricate dance between automation and human talent in the context of Banking 5.0. Drawing upon a comprehensive review of existing research and literature published between 2016 and 2023 (Deloitte, 2023), we explore the challenges and opportunities presented by this transformative era for HRM. Our analysis unveils two key areas of concern:



1. **Workforce Transformation:** How can financial institutions effectively manage the reskilling and upskilling of workforce required to adapt to the evolving demands of Banking 5.0? This necessitates navigating the delicate balance between automation and human ingenuity, strategically streamlining workforces while optimizing the existing talent pool (Brynjolfsson & McAfee, 2014).
2. **Human-Machine Collaboration:** Fostering productive and ethical partnerships between humans and machines lies at the core of achieving success in Banking 5.0 (Gautam and Mittal, 2022). This necessitates addressing concerns around data security, ethical considerations, and the changing nature of work (World Economic Forum, 2020).

By effectively addressing these key challenges, financial institutions can leverage the immense potential of Banking 5.0 to achieve enhanced efficiency, innovation, and a future-proofed workforce. This paper serves as a roadmap for navigating this transformative era, equipping HR professionals and industry leaders with the knowledge and practical strategies to thrive in the exciting future of Banking 5.0.

2. REVIEW OF LITERATURE

Industry 5.0 is a convergence of organizational principles and technologies geared towards fostering resilient, sustainable, and human-centric operations within supply chains. Ivanov (2022) highlights its aim to establish a triple bottom line focusing on resilience, well-being, and sustainability. Additionally, Johri et al. (2021) emphasize the collaborative partnership between humans and machines in Industry 5.0, foreseeing increased job creation and improved efficiency in manufacturing while preserving the human workforce.

Machine learning's potential in predicting Industry 5.0 efficiency, backed by crucial roles played by security protocols and Industrial IoT, is discussed by Pant et al. (2022), proposing the Quorum blockchain for ultimate security. Banking 5.0, as outlined by Sunindita, Pan (2022) and Bernardo, Nicoletti (2021), encompasses the integration of AI and digital technologies in banking to heighten productivity, introduce new financial institutions such as fintech organizations, and promote sustainable banking practices.

1. **Person Contribution to Banking 5.0:** Persons ("person" is a broad and inclusive way to refer to any human being affiliated with or working for an organization) who are engaged in the organization must contribute to banking 5.0 at two levels:
 - i. Persons form the cornerstone of organizational processes, playing a pivotal role in the transition to

Banking 5.0. Their active engagement is integral as the evolution impacts working procedures. From a micro-level perspective, survey results indicate employee uncertainty regarding the specific technologies employed in Banking 5.0 and its implications on their work habits (Gupta and Mittal, 2008).

- ii. On the macro level, employees comprehend and underscore the significance of Banking 5.0 in securing organizational success and even survival. At the management level, the transformation and heightened global connectivity prompt the establishment of an environment conducive to creativity and innovation. Managers are tasked with identifying macro-level bottlenecks and challenges, crafting strategic actions to address them and unleashing the full potential of the workforce.
2. **New Working Models:** Innovative solutions create new markets and jobs. Many traditional jobs are in extinction. There is a long-term trend toward improving the use of talent.

Potential strategies are:

- i. **Selective Workforce Streamlining:**
 - Organizations opt for targeted employment reduction.
 - Retained staff undergo specialized training to elevate skills, fostering increased productivity and mutual enhancement of capital and labour investment.
- ii. **Capital Integration:**
 - Firms strategically substitute human roles with capital where feasible.
 - This shift aligns with the goal of enhancing operational efficiency.
- iii. **Technology-driven Efficiency:**
 - Adoption of robotics and computers for streamlined task execution.
 - Emphasis on fostering effective collaboration between humans and technology in this evolving landscape.

These trends will play an essential role in the global labour market.

The role of banking executives and managers is essential in banking 5.0. They should:

- Define the priorities for their organization.
- Sell the solutions to the decision-takers.
- Plan and check actions.
- Implement pilots and proofs of concept.
- Understand the lessons learned and implement them in normal banking operations.

Some leaders need to work hard to match the desired agility and expectations and the essential information and communication security on a banking 5.0 roadmap.

Therefore, some organizations have already introduced a new profile, called Chief Digital Officer (CDO), to support banking 5.0. The CDO's job is to overcome the lack of agility, banking focus, and inflexible nature of some of the current staff, processes, and systems. The managers need to lead from the front and collaborate more closely with the concerned team, managers, and executives. There is a need for support from the top management to redefine everybody in their roles.

3. **Banking in Team:** The evolution of Banking 5.0 emphasizes teamwork as a key driver for enhanced digitization, efficiency, and customer satisfaction. This shift goes beyond physical proximity, embracing diverse teams and leveraging technology to unlock new possibilities.
4. **Five pillars underpin this collaborative strategy:**
 - i. **Processes:** Teamwork shines in areas like marketing, where diverse perspectives foster effective support.
 - ii. **Persons and Organization:** From project teams within the organization to ecosystem collaborations, Banking 5.0 demands cross-functional expertise and shared learning.
 - iii. **Platforms:** Technology empowers teams with communication tools (chats, video calls), coordination software (calendars, document sharing), and collaboration platforms for seamless interaction.
 - iv. **Partnerships:** Collaboration extends beyond internal walls, forging alliances with stakeholders for mutual benefit and ecosystem success.
 - v. **Protection:** Data security and transparency remain paramount, requiring vigilant control over access and information sharing.

This new era of teamwork challenges traditional notions of fixed teams and physical presence. Leaner, self-organizing units and virtual collaboration platforms are transforming how banks operate, fostering agility and responsiveness. By embracing teamwork and its technological enablers, Banking 5.0 builds a future where collaboration fuels success.

5. **Education 5.0:** In the context of Banking 5.0, the persons are the capital asset. Persons do not come with embedded knowledge. Banking know-how may be essential, but for many types of banking services, for example, financial advisors or project management, the technology is a sideshow. The skills and experiences of the persons, the service providers, are the real limitation.

Joining service value networks require a significant push. Accumulation of human capital may take longer compared to the expansion of physical capital. Banking 5.0 is associated with the support of AI, robotic process automation, and sustainability.

Education 5.0 requires three steps to lead to banking 5.0:

- i. **Develop education and training programs.** Education 5.0 must be an integrated process. It starts to create awareness and sensitivity from the top management downward. This approach must be consistent with the financial institution's strategy and, in general, with its policy.
- ii. **Redesign how persons work and interact.** The organization should redesign the work experience of the persons within the organization and the critical intermediaries.
- iii. **Attract new talents from the labor market.** The innovative ways of working (new roles, new competencies, new relationships and partnerships, new tools, and so on) can be challenging to be accepted and integrated within their work by some persons in the organization.

Education 5.0, with its focus on awareness, strategic alignment, and innovative redesign, serves as a foundation for cultivating the skills and capabilities needed to thrive in the dynamic landscape of Banking 5.0.

6. **Human-Machine Collaboration:** We can understand that the Internet of Things (IoT) plays a crucial role in Industry 5.0, acting as the nervous system that connects and gathers data from the vast network of devices and machines. This is done by enabling human-centricity: Industry 5.0 emphasizes the human aspect, with technology augmenting rather than replacing workers. IoT sensors collect real-time data on worker safety, equipment performance, and environmental conditions, allowing for adjustments and interventions to create a safer and more productive work environment.

Moreover, IoT's multifaceted role in banks, ranging from enhancing customer convenience with reduced waiting times through ticketing systems and chatbots (Olim et al., 2023), to improving secure online payments (Ennafiri et al., 2023), and developing thumbprint-based financial security schemes and IoT-based smart lockers for heightened security and user-friendly access to valuables (unspecified sources), underscores its varied impact in the banking sector.

Imran et al. (2023) discuss IoT's influence on customer relationship management in banks, particularly in emerging markets, outlining both the benefits and challenges faced by banks in adopting IoT-based systems,

emphasizing IoT's significant contribution to economic growth through banking and finance.

The integration of AI and virtual reality is transforming the workforce, leading to mixed teams comprising individuals and smart technologies.

Some manufacturing companies have already adopted or intend to introduce innovative solutions/processes, including ICT security, cloud computing, collaborative robotics, and the Internet of things. When combined with human ingenuity and creativity, AI allows both humans and financial institutions to achieve much more. Accenture terms this collaboration as "applied intelligence," empowering financial institutions to tackle complex challenges, develop new products, and explore new markets (Mittal, 2015).

Robots will become cobots increasingly. Cobot combines two words 'Collaborative' and 'roBOT'. Cobots combine operational and integrative flexibility capable of interacting securely with the work environment and with the operators with whom they share their work. Cobots are power tools that add power to the operators in terms of speed, accuracy, and precision with a human touch. Financial institutions are interested in virtual or software cobots. Some uses of these cobots are:

- Automatic preparation and sending of documentation requests.
- Use of smart contracts and support the drafting of the agreements. These solutions are computer protocols that ease, verify, enforce, negotiate, or execute a contract.
- Automated performance management and monitoring. Fraud detection. Automated customer assessments.
- Production of automatic dashboards and automated indications of the improvement actions.
- Production of customized services.

Machine learning systems rarely replace the entire job, process, or business model. Machine learning systems complement human activities through "person augmentation". The essence of "person augmentation" is in concepts such as augmented intelligence, or "person-AI symbiosis." In this way, AI systems amplify intellectual, cognitive, and if necessary personal sensitive capabilities rather than replace them. The most valuable competency that humans contribute to AI-powered decision-making is a critical judgment and creativity.

AI systems will push this approach further, causing workers interactions with corporate actions and processes to become more abstract. The new role is to oversee, analyze, and case interactions between AI operators with

customers, using a unique combination of soft and complex competencies.

While AI systems have limitations, such as errors in deep learning, the vision is to augment human intelligence rather than working autonomously. Decision responsibility lies with individuals to ensure accountability. To avoid cognitive complacency, an "intelligent interface layer" facilitates mutual learning between humans and machines.

Human-Robot Collaboration (HRC) in Banking 5.0 is characterized by dimensions like autonomy, information exchange, team organization, adaptivity, training tasks, person factors, ethics, and cybersecurity. An HRC framework enables the evaluation and comparison of collaborative applications based on these dimensions.

Industry 5.0 prioritizes human well-being and environmental sustainability alongside efficiency. Resilience is built through IoT-driven proactive maintenance and real-time data for predictive solutions. Employee empowerment shifts the focus from profit to people, leveraging AI and automation to assist workers with repetitive tasks and upskilling them for higher-order skills.

Improved working conditions are ensured through data-driven optimization for safety, ergonomics, and air quality. Safety takes center stage with AI-powered risk detection, wearable health monitors, and ergonomic design. The human-centric approach extends to mental well-being with stress reduction tools, support programs, and flexible work arrangements. Sustainability is woven into the fabric of Industry 5.0 through closed-loop systems, resource optimization, and renewable energy sources. This ongoing journey requires collaboration between diverse stakeholders to ensure technology serves humanity and builds a thriving future for all.

3. STATEMENT OF THE PROBLEM

The problem statement focuses on the challenges posed by the extinction of many traditional jobs and the long-term trend towards improving the use of talents. It could also discuss the potential strategies for addressing these challenges, such as selective workforce streamlining, capital integration, and technology-driven efficiency.

Financial institutions face a critical challenge in adapting their human resource management (HRM) practices to successfully navigate the transformative shift to Banking 5.0, an era characterized by advanced technologies, person-machine collaboration, and digital value networks. This challenge calls for addressing two key problems relating to the transformation of workforce as well as Human-machine collaboration:

1. Workforce Transformation:

How can organizations effectively manage the workforce transformation required by Banking 5.0, balancing the need for automation and efficiency with the ongoing need for human talent and adaptability?

What strategies can be implemented to successfully retrain and upskill existing staff, strategically reduce workforces where necessary, and integrate new roles and skills to thrive in this evolving landscape?

2. Human-Machine Collaboration:

How can financial institutions foster effective collaboration between humans and machines to maximize productivity and innovation while addressing concerns about ethics, data security, and the changing nature of work?

What measures can be taken to promote person augmentation, ensure clear ethical guidelines, implement robust security measures, and create a culture of continuous learning and adaptation to ensure a successful human-machine partnership?

By effectively addressing these two core problems, financial institutions can position themselves to reap the benefits of Banking 5.0, enhance efficiency, and create a more integrated and innovative banking experience for both employees and customers.

4. OBJECTIVE

To explore Banking 5.0's impact on the Human Resources of the organisation, aiming to educate and equip professionals with practical solutions. It emphasizes teamwork, human-machine collaboration, and reskilling. By highlighting human talent's unique value, it fosters dialogue and advocates for human-centred approaches in this evolving landscape.

- a. Raise awareness and understanding of the challenges and opportunities presented by Banking 5.0 for Human Resource Management (HRM).
- b. Propose practical strategies and best practices for navigating the transition to Banking 5.0 in the context of HRM.
- c. Encourage collaboration and knowledge sharing among HR professionals and other stakeholders in the financial industry.
- d. Advocate for the continued importance of human talent and skillsets in the age of Banking 5.0.
- e. Contribute to the ongoing discussion and research on the future of work and HRM in the context of technological advancements.

5. METHODOLOGY

- i. Focus on Existing Research: The methodology primarily relies on a comprehensive review of

existing research, indicating a strong foundation in established knowledge. By analysing books, academic papers, case studies, and industry reports published between 2016 and 2023 the review captures the latest developments and trends in Banking 5.0, HRM, and related fields.

- ii. Quantitative and Qualitative Data: By incorporating both quantitative and qualitative data sources, the review presents a multifaceted understanding of the subject matter. Quantitative data from industry reports might offer statistics on workforce trends, while qualitative insights from case studies and expert reports could reveal deeper challenges and human experiences associated with HRM transformation in Banking 5.0.
- iii. Timeframe Specificity: Focusing on research from 2016 to 2023 demonstrates a mindful approach to capturing the rapid advancements and evolving landscape of Banking 5.0. This ensures the review reflects the most relevant findings and insights directly applicable to this dynamic field.

6. FINDINGS AND POLICY IMPLICATIONS

Financial institutions must actively adapt their HR practices by embracing technology, fostering collaboration, investing in education, and developing agile leadership to thrive in this new era. The key findings and recommendations to banks are:

- a. Workforce Transformation: Banking 5.0 demands a significant workforce transformation, driven by automation and efficiency needs. Traditional jobs are threatened, requiring selective workforce streamlining and capital integration.
- b. Human-Machine Collaboration: Effective collaboration between humans and machines is crucial in Banking 5.0, maximizing productivity and innovation while addressing concerns about ethics, data security, and changing work processes.
- c. New Working Models: Finding: Banking 5.0 necessitates shifting from traditional models towards teamwork, leveraging the advantages of digital platforms and ecosystems.
- d. Education 5.0: Investing in training programs aligned with the transformation is key. This involves developing integrated training programs, redesigning work experiences, and attracting new talent with relevant skills.
5. Leadership in Banking 5.0: Banking 5.0 demands agile and responsive leadership capable of defining priorities, driving solutions, and implementing the transformation roadmap.

The article acknowledges the potential challenges of implementing Banking 5.0, such as workforce displacement and ethical concerns around AI integration. However, it focuses on the positive opportunities and offers practical strategies for addressing these challenges. The emphasis throughout the paper is on finding the right balance between humans and machines, leveraging technology to enhance human capabilities and create a more sustainable and efficient banking landscape.

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