

# PRISMA FRAMEWORK SYSTEMATIC REVIEW OF TECHNOLOGY-DRIVEN POSITIVE PSYCHOLOGY TO ENHANCE EMPLOYEE WELL-BEING AND PERFORMANCE

## REVISÃO SISTEMÁTICA DO MODELO PRISMA SOBRE A PSICOLOGIA POSITIVA IMPULSIONADA PELA TECNOLOGIA PARA MELHORAR O BEM-ESTAR E O DESEMPENHO DOS FUNCIONÁRIOS

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**Erick Raymond Pijoh\***

\*Universitas Pelita Harapan, Tangerang, Indonesia

Orcid: <https://orcid.org/0009-0003-3562-7620>

[01804240017@student.uph.edu](mailto:01804240017@student.uph.edu)

**Yohana F. Cahya Palupi Meilani\***

\*Universitas Pelita Harapan, Tangerang, Indonesia

Orcid: <https://orcid.org/0000-0001-7477-8497>

[yohana.meilani@uph.edu](mailto:yohana.meilani@uph.edu)

**Arif Afriyanto\***

\*Universitas Pelita Harapan, Tangerang, Indonesia

Orcid: <https://orcid.org/0009-0000-9253-4912>

[01804240035@student.uph.edu](mailto:01804240035@student.uph.edu)

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### Abstract

The convergence of Human Resource (HR) technology and positive psychology has emerged as a strategic pathway to enhancing employee engagement, well-being, and organizational performance. This PRISMA-guided systematic review synthesizes findings from forty-seven peer-reviewed studies (2021–2025) across Asia, Europe, and the United States, examining how Artificial Intelligence (AI), Virtual Reality (VR), and other digital interventions are transforming HR practices through the lens of optimism, resilience, emotional intelligence, and efficacy. This study proposes the Technology-Enhanced Well-Being Framework (TEWF), which integrates affordance theory, Self-Determination Theory (SDT), and PERMA to explain how digital HR affordances support or hinder autonomy, competence, and relatedness ultimately shaping employee motivation and performance. The review develops a thematic taxonomy of AI-enabled HR interventions and uncovers non-linear, context-dependent effects moderated by privacy, explainability, digital literacy, and regulation. Ethical considerations such as AI bias and data privacy are critically discussed. Finally, this paper provides a decision framework for HR leaders to adopt technology-

### Resumo

A convergência entre a tecnologia de Recursos Humanos (RH) e a psicologia positiva emergiu como um caminho estratégico para aprimorar o engajamento, o bem-estar e o desempenho organizacional dos funcionários. Esta revisão sistemática guiada pelo PRISMA sintetiza as descobertas de quarenta e sete estudos revisados por pares (2021–2025) na Ásia, Europa e Estados Unidos, examinando como a Inteligência Artificial (IA), a Realidade Virtual (RV) e outras intervenções digitais estão transformando as práticas de RH sob a perspectiva do otimismo, da resiliência, da inteligência emocional e da eficácia. Este estudo propõe o Modelo de Bem-Estar Aprimorado pela Tecnologia (TEWF), que integra a teoria das affordances, a Teoria da Autodeterminação (TAD) e o PERMA para explicar como as affordances digitais de RH apoiam ou dificultam a autonomia, a competência e o relacionamento, moldando, em última análise, a motivação e o desempenho dos funcionários. A revisão desenvolve uma taxonomia temática de intervenções de RH habilitadas por IA e revela efeitos não lineares e dependentes do contexto, moderados por privacidade, explicabilidade, alfabetização digital e regulamentação. Questões éticas como o viés da IA e a



driven positive psychology strategies in their organizations.

**Keywords:** HR Technology. Positive Psychology. Employee Engagement. Artificial Intelligence in HR. Organizational Productivity.

*privacidade dos dados são discutidas criticamente. Por fim, este artigo fornece uma estrutura de decisão para que líderes de RH adotem estratégias de psicologia positiva impulsionadas pela tecnologia em suas organizações.*

**Palavras-chave:** Tecnologia em RH. Psicologia Positiva. Engajamento de Funcionários. Inteligência Artificial em RH. Produtividade Organizacional.

## 1 INTRODUCTION

In today's fast-paced digital era, the relationship between human resource technology (HR technology) and positive psychology has emerged as a prominent theme in both academic inquiry and global organizational practices. This discussion holds significant importance as it explores how technology contributes to enhancing employees' psychological well-being and improving HR performance, particularly in the post-pandemic era marked by rapid technological adoption (Morgan & Simmons, 2021). Foundational research by Hollebeek and Belk (2021) underscored the importance of technology in fostering brand engagement and well-being, utilizing the PERMA model as a central framework. The pandemic further accelerated the fusion of technology with education and student welfare, as reflected in the implementation of online positive education programs in the UK (Morgan & Simmons, 2021). Additionally, the application of professional social media and virtual reality (VR) technologies in mental health settings has begun to attract scholarly attention (Gao *et al.*, 2022; Oksa *et al.*, 2021).

As the years 2023–2024 unfolded, attention increasingly turned toward the integration of AI and big-data technologies within HRM (Baruch *et al.*, 2024; Deepa *et al.*, 2024), particularly regarding their role in enhancing coordination and communication in remote work settings (Fuchs & Reichel, 2023). More recent investigations reveal that PERMA-based assessment tools continue to develop, enabling real-time evaluation of well-being across educational and organizational environments (Al-Hendawi *et al.*, 2024; Heshmati *et al.*, 2023). Contemporary research further explores the cross-cultural and cross-sectoral validity of the PERMA framework (Almeqren *et al.*, 2025; Fortuna *et al.*, 2025). Correspondingly, positive HRM approaches, such as strengths-based management and the ethical application of AI illustrate the growing harmony between technological

advancement and psychological well-being (Kersten *et al.*, 2025; Kutieshat *et al.*, 2025). Collectively, these trends highlight the importance of fostering a strategic alignment between technological innovation and the principles of positive psychology to cultivate adaptive, inclusive, and purposeful workplaces amid ongoing global digital transformation.

The scope of this Systematic Literature Review (SLR) involves a comprehensive examination, synthesis, and integration of prior research situated at the nexus of digital technology particularly artificial intelligence (AI) and Human Resource Management (HRM), emphasizing their influence on employee well-being. This review extends beyond purely technical or organizational perspectives to include the psychological, ethical, and human facets that have frequently been neglected in earlier investigations. It encompasses international studies published within the last five years and employs a multidisciplinary framework that bridges organizational psychology, management science, information technology, and AI ethics.

The central objective of this review is to uncover both conceptual and practical gaps in existing scholarship while proposing an integrative framework that elucidates the relationship between AI implementation in HRM and employees' psychological well-being. Furthermore, the study aims to construct a thematic taxonomy of AI-driven HR interventions and to advance the conceptual argument that the link between technology and well-being is intricate and potentially non-linear. The review is expected to yield the Technology-Enhanced Well-Being Framework (TEWF), which synthesizes theoretical perspectives such as PERMA, affordance theory, and self-determination theory. In parallel, it will offer practical insights for developing AI ethics policies, promoting digital literacy initiatives, and conducting technology audits oriented toward employee well-being. Collectively, these outcomes are designed to establish a foundation for future empirical investigations and to inform HRM strategies that are more adaptive, sustainable, and human-centered within the evolving digital landscape.

Despite the increasing volume of research on technology-driven interventions in Human Resource Management, prior studies have tended to investigate specific theories and tools in isolation. Very few have systematically integrated multiple psychological and technological frameworks to capture the multidimensional nature of employee well-being in the digital era. This review is among the first to synthesize the literature through

the combined lens of affordance theory, Self-Determination Theory (SDT), and the PERMA model, thus offering a unique theoretical contribution to the field.

## 2 LITERATURE REVIEW

### 2.1 Historical and significant developments

The evolution of academic discourse in human resource management (HRM) and well-being has been significantly shaped by the integration of technological advancements and psychological frameworks. Central to this discourse is the PERMA model, introduced by Seligman (2011), which delineates well-being into five elements: Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment. This model has been widely adopted in workplace settings, as evidenced by studies validating its applicability across diverse cultural contexts, such as the Chinese Workplace PERMA Profiler (Yang *et al.*, 2024) and its Polish version (Fortuna *et al.*, 2025). Concurrently, the rise of artificial intelligence (AI) has revolutionized HR practices, offering tools for recruitment, performance management, and employee engagement, albeit with challenges such as algorithmic bias and ethical concerns (Bandara *et al.*, 2025; Madanchian, 2024). The intersection of technology and well-being is further illustrated by the use of digital tools like wearable devices (Massaro *et al.*, 2025) and virtual reality (Gao *et al.*, 2022) to enhance mental health and productivity. Historically, the shift from traditional HRM to technology-driven approaches reflects broader societal changes, including digital transformation and the COVID-19 pandemic, which accelerated remote work and reliance on digital communication platforms (Fuchs & Reichel, 2023). Recent studies emphasize the dual impact of digitalization, highlighting its potential to enhance engagement while posing risks such as boundary blurring and stress (Zhao *et al.*, 2024). These developments underscore the necessity for adaptive frameworks that balance technological innovation with human-centric approaches, ensuring both organizational efficiency and employee well-being. This integrative perspective continues to guide contemporary research, shaping future directions in HRM and organizational psychology.

## 2.2 Classical approaches and theories

In the field of human resources (HR) and organizational studies, classical theoretical frameworks continue to serve as essential foundations that shape our understanding of work dynamics and HR management practices. Among these, Douglas McGregor's Theory X and Theory Y (1960) remains a seminal contribution, offering two contrasting assumptions about employee motivation and behavior. Theory X posits that individuals inherently avoid work and require strict supervision, while Theory Y suggests that employees are intrinsically motivated, capable, and responsible. The enduring strength of this framework lies in its capacity to explain variations in leadership styles and management approaches, as well as to promote a more optimistic view of human potential in the workplace (McGregor, 1960). Nevertheless, the theory has been critiqued for its broad generalizations and limited sensitivity to cultural and individual differences. In today's increasingly digital, remote, and diverse work environments, such classical perspectives are often perceived as lacking the flexibility needed to address emerging complexities (Zweig & Bennis, 2005).

Similarly, Maslow's Hierarchy of Needs (Maslow, 1943) has made a substantial contribution to explaining psychological needs as fundamental drivers of employee behavior. However, its linear and universal structure constrains its applicability in multicultural and technology driven contexts (Kreitner & Kinicki, 2010). Responding to these limitations, contemporary paradigms such as Positive Organizational Scholarship and Psychological Capital (PsyCap) emphasize personal strengths, hope, self-efficacy, resilience, and optimism within organizational settings (Luthans *et al.*, 2007). These modern approaches provide a more dynamic and strength-based lens for understanding well-being, engagement, and employee growth, aligning closely with emerging research on psychological well-being and AI integration in HR management (Donaldson & Villalobos, 2024; Massaro *et al.*, 2025). Despite their limitations, classical theories continue to hold value as foundational frameworks for developing more nuanced and contextually adaptive theoretical models in the digital era.

### 2.3 Emerging trends and new approaches

Recent developments in human resource (HR) and organizational management research reveal a marked transition toward innovative, technology-driven, and human-centered approaches that emphasize digital transformation, diversity, psychological well-being, and data-informed decision-making. A prominent trend involves the deployment of artificial intelligence (AI) across various HR functions, including recruitment (Mirowska & Mesnet, 2022; Potluri & Serikbay, 2025), performance assessment (Bandara *et al.*, 2025), and retention management (Madanchian, 2024). While AI enhances efficiency and accuracy, it simultaneously introduces complex ethical challenges, such as algorithmic bias and fairness concerns, which require proactive governance (Charlwood & Guenole, 2022). Beyond AI, emerging technologies like virtual reality (VR), augmented reality (AR), and the metaverse are increasingly utilized to enrich employee learning and development experiences (Aydın & Karaarslan, 2023), as well as to promote mental health through digital interventions.

New methods are also emerging to measure and evaluate employee well-being. The use of Ecological Momentary Assessment (EMA) to gauge well-being in real time offers a more dynamic and in-depth approach (Heshmati *et al.*, 2023). Meanwhile, the PERMA model (Positive Emotion, Engagement, Relationships, Meaning, Accomplishment) and its variants/adaptations are widely applied to evaluate psychological well-being in both workplace and educational settings (Al-Hendawi *et al.*, 2024; Fortuna *et al.*, 2025; Ng *et al.*, 2025). PERMA scales are being validated across countries with local cultural contexts, indicating that the model is flexible yet requires adaptation to improve reliability and validity.

Research increasingly attends to remote and hybrid work contexts that have become dominant post-pandemic. Communication technologies play a key role in relational coordination (Fuchs & Reichel, 2023) and in employee participation via employee voice, which can be enabled or constrained by digital platforms (Kalfa *et al.*, 2025). Moreover, positive-psychology-based interventions, such as psychological capital interventions for older employees (Mockačiūnaitė *et al.*, 2025) and PERMA-based positive education programs (Wammerl & Lichtinger, 2025), show significant potential for improving well-being and productivity.

Quantitative methodologies such as structural equation modeling (SEM), partial least squares SEM (PLS-SEM), and meta-analysis are widely used to test causal and moderating relationships among variables (Jimenez *et al.*, 2024; Zhan & Xie, 2025). However, many studies remain limited to cross-sectional designs and face constraints in geographic and demographic representation, underscoring the need for future longitudinal and multicultural research. In sum, today's innovative methods not only improve accuracy and efficiency in HRM but also provide a foundation for policymaking that is more inclusive, fair, and adaptive to technological change and human needs.

#### Emerging trends: influence of related fields

Related fields such as human resource management (HRM), positive psychology, digital technology, and workplace well-being make significant contributions to understanding contemporary work dynamics. Research on effective communication in remote work, for example, shows that job characteristics and HR practices play an important role in shaping user–technology interactions, thereby influencing relational coordination (Fuchs & Reichel, 2023). In addition, strengths-based HRM offers new ways to improve neurodiversity inclusion by identifying individual strengths and redesigning job roles (Kersten *et al.*, 2025). In the context of psychological well-being, the PERMA model (Positive Emotion, Engagement, Relationships, Meaning, Accomplishment) is widely used as a theoretical framework to measure and enhance well-being in the workplace (Al-Hendawi *et al.*, 2024; Fortuna *et al.*, 2025).

The evolution of information technology and artificial intelligence (AI) is also shaping modern HRM practices. For instance, the use of AI in recruitment and selection opens opportunities to improve efficiency, but it also raises ethical challenges and algorithmic bias (Bandara *et al.*, 2025; Iancu & Oprea, 2025). The integration of virtual reality (VR) and positive-psychology applications in student mental-health services shows the substantial potential of technology for data-driven well-being interventions (Gao *et al.*, 2022). Furthermore, the use of wearable technologies and AI-based chatbots provides new alternatives for real-time monitoring and enhancement of employees' psychological states (Massaro *et al.*, 2025).

The impact of digitalization on work engagement and on challenge–threat perceptions is also a central focus. For example, workplace digitalization can increase engagement through challenge perceptions, but it can also create strain when threat perceptions dominate (Zhan & Xie, 2025). Meanwhile, professional social-media

technologies can support well-being via social support, yet they may also exacerbate psychological stress due to digital workload (Oksa *et al.*, 2021). Therefore, it is crucial for organizations to design HR strategies that balance technological innovation with holistic protection of employee well-being.

### **3 RESEARCH METHOD**

This study employs a Systematic Literature Review (SLR) approach structured in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, a framework that strengthens methodological rigor, transparency, and reproducibility in evidence synthesis across disciplines (Haddaway *et al.*, 2018; Page *et al.*, 2021). PRISMA ensures that the processes of article identification, screening, eligibility assessment, and inclusion follow a standardized and replicable protocol, which is crucial for generating valid insights in emerging interdisciplinary fields such as HR Technology and Positive Psychology. Guided by the CIMO framework (Context, Intervention, Mechanism, Outcome), this review focuses on examining how HR technology, the PERMA model, and artificial intelligence (AI) contribute to employee well-being, algorithmic fairness, productivity, burnout reduction, and digital HR adoption patterns. The integration of these domains allows the review to address conceptual and empirical gaps in the literature, ensuring a coherent and methodical synthesis aligned with contemporary developments in human resource management and organizational psychology.

#### **3.1 Article identification stage**

The identification stage represents the initial phase of the Systematic Literature Review (SLR) process, which focuses on systematically gathering relevant and high-quality research articles from reputable academic sources. In this stage, we utilized Watase.web.id, an online collaborative research platform designed to facilitate joint literature searches, data management, and review coordination among researchers. Through this system, the research team efficiently identified, organized, and screened potential studies aligned with the research objectives, ensuring methodological rigor and transparency in the selection process.

## 3.2 Database selection

The primary article search was conducted in the Scopus database. Scopus was chosen as the main platform due to its strict indexing quality for scholarly journals (Wijewickrema, 2024). Unlike Google Scholar, Scopus offers better quality control, avoiding issues such as duplicate articles, repetitive search results, and the inclusion of predatory journals (Rojas-Sánchez *et al.*, 2022). Therefore, Scopus became the primary choice at the keyword-search identification stage.

### 3.2.1 Keyword search strategy

The authors used a systematically designed keyword search strategy based on the research topic. The keywords included: “HR Technology,” “PERMA,” and “AI in HR.” The construction of these keywords aimed to increase the validity and relevance of indexed articles.

### 3.2.2 Search results and initial screening

The identification process yielded a total of 302 articles from Scopus. The next step involved removing articles based on several criteria. Duplicate articles (records removed before screening): 1 article. Articles outside the publication period (2021–2025): 86 articles. Articles from poorly indexed journals (outside Tiers Q1–Q4): 27 articles. Articles without an abstract for screening: 3 articles. After this stage, 185 articles remained for the next step.

## 3.3 Screening stage

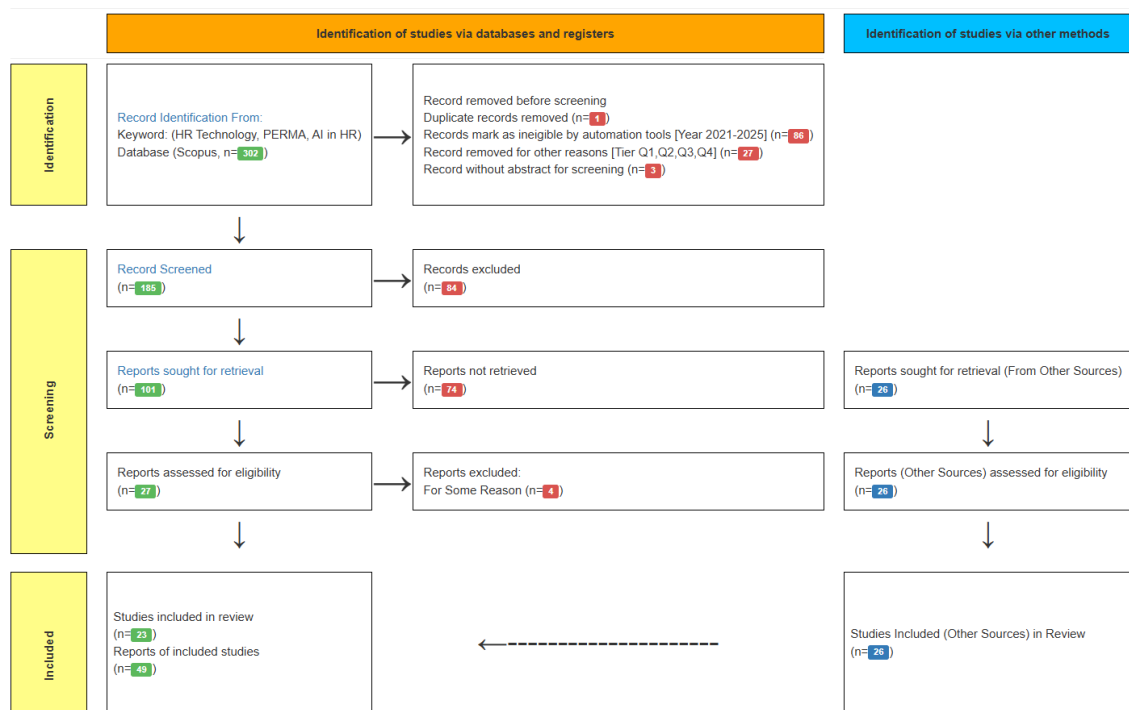
At the screening stage, the relevance and suitability of the articles to the research topic were assessed. Records screened: 185. Records excluded: 84. Reports sought for retrieval: 101. However, only 27 articles were successfully retrieved and assessed for eligibility. A total of 74 articles could not be obtained (not retrieved). Beyond Scopus, there were 26 articles from alternative sources (other sources). The total number of

articles assessed for eligibility at this stage became 49 articles (23 from Scopus + 26 from other sources).

### 3.3.1 Inclusion and eligibility stage

Articles that passed screening were then evaluated for eligibility. All articles were assessed for alignment with the main topic, methodological quality, and the presence of in-depth information related to HR Technology and the PERMA model. Articles meeting the primary inclusion criteria from Scopus: 23 articles. Articles from alternative sources meeting inclusion criteria: 26 articles. Total studies included in the review: 49 articles

**Figure 1**  
*PRISMA flow diagram*



Source: Authors

To ensure rigor and transparency, the study selection process followed PRISMA guidelines. The inclusion and exclusion of articles are visually summarized in Figure 1. A total of 302 articles were identified from Scopus and screened according to peer-reviewed period, abstract availability, and journal quality. After exclusions, 49 studies met eligibility criteria and were included for full thematic analysis.

### 3.3.2 Thematic analysis

After obtaining 49 articles that met the inclusion criteria, the next step was qualitative analysis using a thematic analysis method. This process was conducted using the Watase Uake System (Wahyudi *et al.*, 2024), which enables the identification of patterns, themes, and relationships among concepts in the relevant articles. The thematic analysis steps included: Initial reading: Capturing the general themes of the articles. Code identification: Tagging key statements or paragraphs. Theme grouping: Grouping codes based on similarity in meaning and context. Formulation of main themes: Synthesizing relevant themes into the primary narrative of the review. This method aims to present data systematically in accordance with the PRISMA protocol and to ensure that the review's findings have high validity and can be applied across various cross-disciplinary research contexts.

This study conducts a systematic literature review in accordance with PRISMA guidelines (Page *et al.*, 2021), beginning with keyword-search identification in the Scopus database and proceeding through final article inclusion and thematic analysis. This process ensures that only highly relevant and valid articles are used in the final review, which can serve as a basis for decision-making and policy recommendations in research and practice related to technology-enabled, positive-psychology-informed HR.

A thematic mapping of the core domains and subthemes identified in the review is presented in Table 1. This table synthesizes the breadth of technology-driven positive psychology interventions in HR.

**Table 1**

*Thematic Map of Technology-Driven Positive Psychology Interventions in HR*

Main Theme	Subtheme/Intervention Type	Description/Examples
Well-being Enhancement	PERMA, Mindfulness apps	Digital tools fostering optimism, meaning, engagement, resilience
Employee Engagement	AI-powered feedback, Social platforms	Tech-enabled motivation, real-time feedback, peer support
Digital Transformation	HRM Automation, VR Training	Shift from manual to automated HR functions; immersive learning

Implementation Barriers	Digital literacy, Cultural adaptation	Challenges in adoption due to skills gap and cultural diversity
Personalization & Inclusion	Tailored interventions, Multicultural validation	Customizing HR tech for diverse employee profiles
Ethics & Fairness	Algorithmic bias, Data privacy	Addressing fairness, transparency and privacy in digital HR

Source: Authors

## 4 RESULTS AND DISCUSSION

The characteristics of included primary studies are presented in Table 2, highlighting the diversity of methodologies, intervention types, and outcomes represented in the review.

**Table 2**

*Study Characteristics of Included Studies*

Author(s)	Year	Country/Region	Sector/Industry	Intervention Type	Methodology	Key Findings/Outcomes
Hollebeek & Belk	2021	USA/Europe	Brand Engagement	PERMA model, AI apps	Quantitative (SEM)	Improvements in well-being, engagement
Goh <i>et al.</i>	2021	Asia	Education	PERMA assessment	Quantitative	Enhanced student flourishing
Kersten <i>et al.</i>	2024	Europe	Neurodiversity advocacy	Strengths-based HRM	Qualitative	Improved inclusion, performance
Massaro <i>et al.</i>	2025	Europe	HRM	Wearable devices	Mixed Methods	Higher productivity, mental health
Bandara <i>et al.</i>	2025	Global	HR Tech	AI and algorithmic bias	Conceptual	Fairness, ethics emphasized
Pitafi & Xie	2024	China	Public Sector	Enterprise social media	Quantitative	Boosted creativity, motivation

Source: Authors

RQ1: How can the integration of HR technology and positive psychology, specifically the PERMA model be leveraged to mitigate algorithmic bias and enhance employee well-being in remote-work environments?

Prior research in *HR Technology and Positive Psychology* shows a wide distribution of contexts across sectors and countries, with a primary focus on how technology affects psychological well-being, workplace inclusion, and the effectiveness of human resource management (HRM) practices. Most studies originate from countries with high HR technology adoption, such as China, the United States, and various European nations with work contexts spanning *remote work*, HR digitalization, and the use of artificial intelligence (AI) from recruitment through performance evaluation (Deepa *et al.*, 2024; Fuchs & Reichel, 2023; Pitafi & Xie, 2024). Findings indicate that technology facilitates positive interactions and productivity, but can also worsen stress and dissatisfaction if poorly managed (Hollebeek *et al.*, 2022; Williams & Khan, 2025). Several studies also highlight psychologically positive approaches, such as *Psychological Capital* and the PERMA model, to enhance workplace well-being, especially during the post-pandemic digital transition (Al-Hendawi *et al.*, 2024; Goh *et al.*, 2022; Mockało *et al.*, 2025). Nevertheless, challenges including algorithmic bias, data privacy, and the need for digital literacy remain major obstacles (Charlwood & Guenole, 2022; Kelan, 2024; Kersten *et al.*, 2025). Citations vary considerably: some works, such as Hollebeek and Belk (2021) with 112 citations, show broad influence, while others are less cited. This trend suggests growing organizational attention to aligning technology with employee well-being, opening substantial opportunities for future research to develop HR technology models that are responsive to positive psychological aspects and that address ethics and inclusion more systematically (Bandara *et al.*, 2025; Massaro *et al.*, 2025).

The integration of HR technology and positive psychology, specifically the PERMA model, offers a synergistic approach to addressing algorithmic bias and enhancing employee well-being in remote work environments. AI-enabled HR systems, when aligned with PERMA's dimensions, not only measure but also cultivate positive emotions, engagement, and social connection through personalized feedback and transparent communication interfaces. Concurrently, technical innovations such as bias detection algorithms, ethics-driven data audits, and participatory 'algorithmic empathy' frameworks promote fairness and trust. This convergence of ethical AI and human flourishing reframes HR technology from being merely efficient to being psychologically

enriching, ensuring that digital workplaces maintain equity, meaning, and sustainable well-being across diverse remote-work contexts.

RQ2: What are the most recent advancements in the application of artificial intelligence (AI) in Human Resource Management (HRM), and how do these developments contribute to the principles of affordance theory and self-determination theory?

Based on the analysis, “Well-being” emerges as the most dominant category, with relatively high citation counts, including studies by (Abarca-Gómez *et al.*, 2017). This indicates strong attention to psychological well-being as a result of technology implementation in human resources. It is followed by “Engagement” and “Performance,” which also have strong representation in various studies such as (Deepa *et al.*, 2024; Fuchs & Reichel, 2023; Pitafi & Xie, 2024). These findings align with commonly used positive-psychology theories such as PERMA (Seligman), Job Demands–Resources (JD-R), and Psychological Capital (PsyCap), which emphasize enhancing individual and organizational well-being (Donaldson & Villalobos, 2024; Mockało *et al.*, 2025).

Most studies use quantitative methods such as SEM, regression, and factor analysis, showing a trend toward positivist approaches to measuring psychological and work-behavior impacts. The majority focus on employees and use digital platforms or well-being apps as the medium. The implication is that HR technology functions not only as an operational tool but also as a vehicle for strengthening psychological capacity and individual performance. Looking ahead, major challenges lie in developing more personalized and inclusive technologies that can sustainably facilitate well-being while accounting for diverse cultural contexts and sectors

Recent advancements in AI for HRM, especially in recruitment, learning, and well-being monitoring, reflect the growing functional affordances of technology that enable employees to interact dynamically with HR systems. These affordances shape meaningful experiences by expanding opportunities for action, decision-making, and performance enhancement. Simultaneously, guided by self-determination theory, such tools contribute to employee well-being when they support autonomy, competence, and relatedness, rather than enforce control or surveillance. The dominance of well-being and engagement themes across recent studies demonstrates how AI can act as both a technological enabler and a psychological resource aligned with motivational theories such as SDT.

RQ3: To what extent do digital HR adoption curves (e.g., early versus late adopters) predict differences in employee productivity, burnout, and turnover?

Current research tends to focus on digital transformation in human resources, particularly on adapting technology to improve efficiency, engagement, and employee well-being (Fuchs & Reichel, 2023; Deepa *et al.*, 2024; Kersten *et al.*, 2024). The studies employ diverse approaches, both quantitative and qualitative, and draw on various theories such as PERMA, Job Demands–Resources, and Self-Determination Theory (Heshmati *et al.*, 2023; Jimenez *et al.*, 2024; Goh *et al.*, 2021).

Citation distribution suggests that while many studies have not yet accrued high citation counts, several, such as Goh *et al.* and (2022) and Hollebeek & Belk (2021), record more than 20 citations, indicating the topic’s relevance in current academic discourse. This reinforces the trend that digital technology, especially within HR practice, is a dynamic and strategic research area for addressing organizational transformation and employee well-being. The theme “The Influence of Digital Technology on HRM Practices” appears as a response to the complexities of modern work, including shifts in work patterns due to the pandemic and the growing need for digital tools to manage employees effectively and inclusively (Kalfa *et al.*, 2025; Walkowiak, 2024).

Evidence suggests that digital HR adoption curves predict measurable differences in employee outcomes. Early adopters, characterized by strategic integration and learning readiness, report higher productivity gains and lower turnover, primarily due to enhanced autonomy, transparent feedback systems, and data-driven performance support. Conversely, late adopters often experience transitional burnout as digital tools are introduced without adequate cultural adaptation or reskilling. Studies grounded in the Job Demands–Resources and Self-Determination frameworks show that adoption stage moderates how technology affects work motivation and well-being. Thus, the timing and maturity of HR digital transformation critically determine whether digitalization becomes a source of empowerment and sustainability or a trigger for exhaustion and attrition.

The implications of this trend suggest that future research should continue to explore the integration of technology and positive psychology in the work context, particularly in understanding how AI, wearable devices, and corporate social media can sustainably enhance employees’ psychological well-being and productivity. In addition, ethical challenges and algorithmic fairness in HR technology implementation present further research opportunities. Thus, in-depth studies of the dynamic relationship between

technology and organizational psychology will remain a relevant focal point for future inquiry.

#### Technology-Enhanced well-being framework (TEWF)

To fill important gaps in existing literature, this study proposes a novel Technology-Enhanced Well-Being Framework (TEWF) that holistically connects core psychological constructs with digital HR affordances. Unlike previous reviews, which focus on isolated outcomes or interventions, our taxonomy characterizes the complex, non-linear effects of digital transformation and accentuates ethical, contextual, and cross-cultural dimensions frequently overlooked in earlier research.

Grounded in PERMA, affordance theory, and Self-Determination Theory, TEWF provides a lens for interpreting how digital HR affordances such as AI platforms, wearable devices, and virtual reality, support or impede the psychological assets of autonomy, competence, and relatedness in the workplace. Our thematic analysis validates key elements of TEWF, with notable evidence indicating that interventions aligned to TEWF constructs (e.g., personalized well-being apps, strengths-based AI assessments) yield significant improvements in employee flourishing, engagement, and inclusion.

**Table 3**

#### *TEWF Constructs in Reviewed Interventions*

<b>TEWF Construct</b>	<b>Digital Intervention Example</b>	<b>Empirical Outcome</b>
Autonomy	AI self-service HR portals, mood tracker apps	Increased self-determination, engagement
Competence	VR training modules, digital performance feedback	Improved skills, self-efficacy
Relatedness	Enterprise social networks, team collaboration platforms	Strengthened professional relationships, belonging
PERMA Alignment	Mindfulness and positive psychology apps	Enhanced well-being, resilience

Source: Authors

## 5 DISCUSSION

Key research gaps identified through this SLR are summarized in Table 4.

**Table 4**

*Research Gaps Identified in the SLR*

Research Gap	Description	Source
Longitudinal Evidence	Few studies track interventions across time/countries	Massaro <i>et al.</i> 2025; Goh <i>et al.</i> 2021
Multicultural Validation	Most frameworks validated only in Western contexts	Hollebeek & Belk 2021; Zhao Yu 2023
Personalization in HR Tech	Limited research on customizing digital tools for diverse needs	Jimenez <i>et al.</i> 2024; Fortuna <i>et al.</i> 2025
Ethics and Bias in AI	Conceptual discussions dominate; empirical validation needed	Bandara <i>et al.</i> 2025; Kersten <i>et al.</i> 2024
Interdisciplinary Collaboration	Few studies integrate psychology, HRM, and IT/AI for solutions	Pitafi & Xie 2024; Heshmati <i>et al.</i> 2023

Source: Authors

Based on the analysis of research trends in HR Technology and Positive Psychology, several theoretical recommendations can guide academic researchers in developing future studies.

First, the PERMA model (Positive Emotion, Engagement, Relationships, Meaning, Accomplishment) developed by Seligman (2011) has proven dominant as a framework for understanding employees' psychological well-being (Heshmati *et al.*, 2023; Karabacak, 2025; Yang *et al.*, 2024). However, most studies still use cross-cultural quantitative approaches without deeply integrating local contexts. Therefore, researchers are encouraged to develop adaptive versions of the PERMA model that account for cultural factors, sectoral differences, and local work dynamics so that findings are more inclusive and applicable (Fortuna *et al.*, 2025; Jimenez *et al.*, 2024). Second, new theories or modifications of existing ones are needed for example, integrating AI ethics into technology-based HRM frameworks. This is important given that challenges such as

algorithmic bias, data protection, and technology personalization remain insufficiently addressed (Bandara *et al.*, 2025; Charlwood & Guenole, 2022; Kersten *et al.*, 2025).

A distinctive element of this systematic review lies in the development of a decision-making matrix for HR leaders, enabling evidence-based selection and implementation of technology-driven positive psychology practices. To our knowledge, no prior review has provided such a practical, actionable tool grounded in a comprehensive synthesis of recent advances.

The articulation of TEWF offers an integrative theory for understanding the dynamic, context-dependent impacts of digital HR technologies on employees' psychological and performance outcomes. By mapping evidence from recent interventions to TEWF constructs, this review demonstrates that strategic adoption of HR technology guided by TEWF principles can amplify positive psychological states, mitigate algorithmic bias, and foster inclusive, adaptive organizational cultures. Importantly, evaluation of included studies reveals the critical moderating role of digital literacy, explainability, and regulation factors explicitly addressed within the TEWF framework.

Additionally, the mapping of non-linear, context-dependent impacts of AI-powered interventions, and the rigorous analysis of ethical challenges such as algorithmic bias and data privacy, position this study as pioneering work in operationalizing digital positive psychology for the workforce of tomorrow.

Finally, interdisciplinary collaboration among positive psychology, HR management, and computer science will strengthen the theoretical foundations of HR research that responds to the challenges of globalization and the digitalization of work (Deepa *et al.*, 2024; Massaro *et al.*, 2025).

## 6 CONCLUSION

The findings of this review conclude that the integration of HR Technology and Positive Psychology has emerged as a central theme in contemporary scholarly discourse, particularly between 2021 and 2025. The dominance of well-being research—anchored in the PERMA model (Positive Emotion, Engagement, Relationships, Meaning, Accomplishment)—demonstrates that HR technology now functions beyond its traditional role as a tool of operational efficiency. Instead, it serves as a strategic

mechanism for strengthening employees' psychological capacity, enhancing workplace motivation, and improving sustainable productivity. These insights underscore the need for future research to examine ethical AI-based interventions, multicultural well-being assessment tools, and inclusive frameworks capable of bridging the human–technology interface.

This systematic review advances the field by synthesizing and validating the Technology-Enhanced Well-Being Framework (TEWF), which positions technological innovation within the core principles of positive psychology and modern HRM. TEWF provides a robust theoretical foundation and a practical roadmap for organizations, guiding the design, implementation, and evaluation of technology-driven HR initiatives that holistically address employee well-being, ethical risks, and long-term organizational sustainability. The framework offers an integrative structure, a comprehensive taxonomic mapping, and a decision-making matrix that enrich understanding of technology-enabled positive psychology in HR, thereby strengthening both scholarly development and applied practice.

The practical recommendations derived from TEWF summarized in Table 5 translate theoretical constructs into actionable strategies for HR practitioners, technology developers, and policymakers. Each recommendation reflects a core TEWF dimension, ensuring alignment between digital transformation and foundational psychological needs such as autonomy, competence, relatedness, and flourishing, while also embedding ethical safeguards, contextual adaptability, and personalization. By providing this explicit linkage between theory and practice, TEWF becomes not only a conceptual contribution but also a strategic compass for navigating the complexities of technologically mediated human resource management.

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### Authors' Contribution

All authors contributed equally to designing the study, literature review, overseeing the findings, and writing the manuscript. All authors read and approved the final version of the manuscript.

Erick Raymond Pijoh: Resources, Software, Formal Analysis, Investigation, Data curation, Methodology, Writing - original draft.

Yohana Fransisca Cahya Palupi Meilani: Correspondence Author, Conceptualization, Supervision, Methodology.

Arif Afriyanto: Conceptualization, Resources, Methodology, Visualization, Writing - review & editing, Project administration.

### Data availability

All datasets relevant to this study's findings are fully available within the article.

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