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Designing a Strategic Human Resource Planning Model Based on Artificial Intelligence Development

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Abstract

The present study aims to design a strategic human resource planning model based on the development of artificial intelligence. This research is applied in terms of its objective, survey-descriptive in terms of method, and qualitative in terms of research type. The statistical population of the study consisted of academic experts in the fields of human resources, computer science and artificial intelligence, information systems, and managers of advertising companies in Iraq. The research sample was selected based on the principle of theoretical saturation using purposive (judgmental) sampling from among the experts. Data analysis was conducted using thematic analysis with the MAXQDA software. The qualitative findings of the study indicate that the proposed model comprises five dimensions: developing organizational culture, attracting and retaining AI-related talents, designing artificial intelligence systems to enhance human resource processes, data analysis and forecasting, and training and development. The study's findings suggest that AI-driven training programs aimed at enhancing employee skills can be designed online and adapted to real work conditions, enabling employees to acquire new skills effectively.

Keywords: strategic planning, human resources, artificial intelligence development, advertising companies

1. Introduction

Organizations must recognize that human resources are not merely task performers but fundamental elements shaping the identity and sustainability of the organization (Riniwati, 2016). The success of an organization is not solely dependent on having a sufficient number of employees; rather, it requires the quality, strategic alignment, and operational reliability of each team member. Consequently, effective human resource planning does not merely focus on recruitment and retention of the required workforce but also involves competency development, empowerment, and the integration of human resources with the organization's strategy and operations. Human resource management entails the application of management principles to acquire and retain the best human capital (Raymond et al., 2023).

The primary focus of human resource management is the recruitment of individuals possessing skills, knowledge, and competencies aligned with the organization's needs. The hiring and selection process is conducted meticulously to ensure that



the organization acquires employees who not only meet current job requirements but also demonstrate potential for long-term growth and contribution (Ramadhani et al., 2023).

The digital age has significantly influenced various organizational aspects, including the corporate world and human resource management. Digital advancements such as artificial intelligence, big data, analytics, and automation have profoundly transformed the business landscape (Fenech et al., 2019). In this context, research on the strategic construction of human resource planning in the era of digital transformation and artificial intelligence is becoming increasingly relevant and essential. Strategic human resource planning is a technique that aligns human resource management with an organization's overarching strategy and vision (Gandrita, 2023; Iqbal et al., 2023; Parsakia & Jafari, 2023; Parsakia et al., 2023). It involves the development of a comprehensive plan that defines the aspirations, strategies, and actions of human resources to achieve organizational objectives. Within the framework of digital transformation technology, strategic human resource planning plays a crucial role in ensuring that organizations adapt to changing landscapes and leverage emerging technologies for growth and innovation (Vardarli, 2020).

Strategic human resource planning is vital to ensuring that organizations can cope with rapid changes resulting from digital transformation (Peretz, 2024). Digital transformation provides a fundamental basis for integrating technology into human resource planning. In this era, artificial intelligence, big data analytics, and technological platforms have become valuable tools for enhancing the efficiency and effectiveness of human resource planning. For instance, artificial intelligence enables automation in employee selection processes, identification of potential talent, and prediction of future skill requirements. Big data analytics assists human resource professionals in making evidence-based decisions, extracting insights from employee data to understand behavioral trends, and planning human resource needs based on empirical data (Gilch & Sieweke, 2021).

Artificial intelligence and automation have entirely transformed various business aspects. As implementation progresses, artificial intelligence continues to expand despite the complexities and challenges associated with technological adoption. One perspective on artificial intelligence suggests that it functions as a predictive technology built on machine learning, generating judgments, forecasts, and recommendations for real-world or hypothetical situations. However, machine-learning-based artificial intelligence has certain limitations, such as its tendency to predict future trends based on historical data by identifying patterns. Artificial intelligence can be applied across market touchpoints in machine learning, customer insights, and decision-making systems to forecast individual activities and guide decision-making processes. Technological advancements will enable the management of vast volumes of data (Arumugam et al., 2024).

By leveraging market data in a simplified manner, organizations can refine and customize content to suit their audience. Through artificial intelligence, businesses can develop better analytical approaches to target potential consumers more accurately. Venture capitalist Frank Chen categorizes artificial intelligence into five domains: logical reasoning, information representation, scheduling and guidance, language processing, and sensory perception. The complexity of algorithmic representation and precision makes it increasingly difficult to differentiate between artificial and non-artificial technological applications. Artificial intelligence is a technology that enables machines to perform tasks traditionally assigned to humans. It manifests in various forms, including machine learning, which enhances analysis and decision-making, and speech-based technology, which facilitates the recognition of diverse words and languages. Artificial intelligence has already become an integral part of the business world and continues to expand rapidly. Davenport et al. (2020) discuss the impact of artificial intelligence, particularly on marketing strategies and consumer behavior. They argue that artificial intelligence's short- and medium-term effects may be limited and that it performs best when complementing human managers rather than replacing them (Davenport et al., 2020).

Ranko et al. (2016) conducted a study focusing on online buyers' perceptions during digital transactions. Their findings indicate that concerns regarding privacy, security, and confidentiality in digital marketing influence online purchasing behavior. The integration of technological platforms such as integrated human resource management systems and performance analysis software enhances the efficiency of human resource planning. These platforms facilitate easy access to employee information, real-time performance monitoring, and skill development planning. Research findings suggest that organizations that actively adopt technology in human resource planning tend to have more responsive and adaptable systems, fostering a more efficient and innovative work environment. Therefore, technology integration not only accelerates the human resource planning process

but also generates strategies that are more contextualized and aligned with the dynamics of digital transformation (Jiang et al., 2023; Khan et al., 2024).

This study aims to provide a comprehensive understanding of how human resource planning aligns with artificial intelligence development, which continues to evolve, using a systematic literature review and expert interviews (Gao, 2024). The successful adoption and integration of human resource planning based on digital transformation and artificial intelligence can serve as a decisive factor in achieving strategic objectives (Yadnya et al., 2023). Artificial intelligence has brought numerous benefits to human resource management, including the automation of repetitive tasks, streamlining processes, and reducing errors, ultimately enhancing overall performance and productivity (Shuguang & Shuyang, 2021).

Artificial intelligence facilitates skill enhancement and knowledge dissemination among employees, enabling them to adapt to evolving job requirements and technological advancements. Digital transformation allows human resources to align with sustainability goals by reducing paper consumption, electricity usage, and carbon footprint, thereby creating a more environmentally friendly workplace. In this regard, human resource management can improve employee experience by providing self-service portals, mobile applications, and other digital tools that enable seamless access to records and services. The adoption of artificial intelligence in human resource management has enabled the use of digital records and evaluation tools for informed decision-making regarding recruitment, overall performance management, and various human resource capabilities. Artificial intelligence offers multiple advantages to human capital, including enhanced performance, skill development, sustainable growth, advanced work experience, and data-driven decision-making. Organizations implementing artificial intelligence in human resource management practices are more likely to gain a competitive edge in the digital age (Li-Lun & Yao-Jen, 2023).

The rapid expansion of computer science across all fields and the unprecedented achievements of industry pioneers in realizing what was once considered a distant dream have fueled the widespread adoption of artificial intelligence globally (Mousa et al., 2024). Organizations that promptly recognize the necessity of equipping themselves with these technologies—particularly in advertising companies through integrated information systems—position themselves to connect with the global civilization network. Artificial intelligence provides solutions to meet the information needs of advertising firms, aiding in data analysis to support decision-making, identifying sales trends, and improving customer service by addressing key complaints (Nazimi et al., 2022). Additionally, artificial intelligence can assist advertising firms in predicting future consumer behavior and market demand. Furthermore, it can contribute to cost reduction, productivity enhancement, product development, improved customer service, and revenue growth in advertising companies.

The literature review highlights the growing significance of strategic human resource planning and artificial intelligence (AI) integration in enhancing organizational performance. Ali et al. (2024) explored AI-enabled human resource recruitment functions, revealing that AI adoption accelerates HR processes, improves documentation, and enhances decision-making capabilities, underscoring the necessity of advanced technologies in HR performance (Ali & Kallach, 2024). Barret et al. (2024) addressed AI skill requirements for HR professionals, emphasizing the need for continuous monitoring of workforce needs to ensure proper training and readiness for technological changes (Barrett, 2024). Rismaiyadi (2024) identified both opportunities and challenges in AI-driven HR management, showing that AI enhances hiring, performance management, and skill development while also posing challenges such as job displacement, high maintenance costs, and the need for specialized expertise (Rismayadi, 2024). Khan et al. (2024) analyzed the impact of HR planning on organizational goal achievement, arguing that while HR planning integrates workforce capabilities with business objectives, a direct relationship between HR planning and success is not always evident, highlighting the need for a more comprehensive HR planning approach (Khan et al., 2024). Li-Lun and Yao-Jen (2023) examined AI's influence on HR performance in the healthcare sector, noting its potential for optimizing organizational efficiency, but also acknowledging limitations in generalizing findings across industries (Li-Lun & Yao-Jen, 2023). Nazimi et al. (2022) developed a five-dimensional performance management model for HR in Tehran Municipality, emphasizing the role of AI and digital transformation in HR performance optimization (Nazimi et al., 2022). Lastly, Ghaderi et al. (2023) conducted a strategic HR planning system analysis in the education sector, identifying ten distinct strategic HR planning models and proposing an optimal framework for enhancing HR strategic planning in educational



institutions (Ghaderi et al., 2023). These studies illustrate the crucial role of AI and strategic HR planning in organizational development, while also highlighting challenges related to implementation, workforce adaptation, and sustainability.

Despite extensive literature on digital transformation, there remains a significant gap in the holistic integration of artificial intelligence and strategic human resource planning. Addressing this research gap, this study aims to bridge the divide by synthesizing key literature findings and expert interviews. Through an inductive approach, this research establishes a deeper understanding of the relationship between strategic human resource planning and artificial intelligence development while highlighting the opportunities and challenges critical for enhancing human resource management effectiveness in the digital age. Thus, this study seeks to answer the following question: How can a strategic human resource planning model based on artificial intelligence development be designed for advertising companies?

2. Methods and Materials

The research methodology is classified as exploratory-applied in terms of its objective, qualitative in terms of data type, cross-sectional in terms of data collection time, inductive-deductive in terms of philosophical approach, and descriptive-survey in terms of data collection method and research nature.

The statistical population of the present study consists of academic experts in the fields of human resources, computer science and artificial intelligence, information systems, and managers of advertising companies in Iraq. These experts were selected for qualitative analysis and interviews. The sample for this section was determined based on the theoretical saturation principle and selected through non-random purposive (judgmental) sampling. Ultimately, a total of 10 individuals were chosen as the sample size.

The data collection instrument for the qualitative section consisted of semi-structured interviews. In qualitative research, researchers planning data collection must align their approach with the type of information they seek. Scholars have proposed three primary interview strategies: in-depth interviews, observation, and sampling and enumeration, all of which researchers can use in their studies. Additionally, document analysis, reviewing written materials, and analyzing stable and transient records can also be considered. The data collection method in the present qualitative research is exploratory interviews. The reason for selecting exploratory interviews as the data collection method is their high flexibility, which allows them to be conducted in various settings while generating in-depth information. Moreover, this approach ensures that most research participants (interviewees) feel comfortable compared to other qualitative methods such as participant observation, thereby making it a more effective technique.

For data analysis, the present study employed thematic analysis. Thematic analysis is a method used to identify, analyze, and report patterns (themes) within data.

3. Findings and Results

An examination of the average age of the experts surveyed revealed that university professors and academic experts had the highest average age at 52.40 years, while managers of advertising companies had the lowest average age at 36.60 years. In analyzing work experience, it was found that university professors and academic experts had the highest professional experience with an average of 22.80 years, whereas managers of advertising companies had relatively less experience, averaging 11.40 years. Among the participants in the present study, six individuals held a PhD, while four individuals held a master's degree.

In thematic analysis, secondary codes serve as indicators that help researchers identify similar patterns and themes within the text, facilitating a more comprehensive analysis of the data. The secondary codes derived from the primary and open codes extracted from the interviews conducted in the present study are reported in Table 1.

Table 1. Extracted Secondary Codes

No.	Extracted Secondary Codes	Primary and Open Codes
1	Encouraging efficiency and optimization in artificial intelligence usage	Utilizing data for better decision-making, increasing accuracy and speed through artificial intelligence algorithms and models, predicting future company needs with AI, enhancing employee satisfaction by improving human resource management processes, better organizing human resources using AI.
2	Providing incentives and rewards for AI technology adoption	Encouraging productivity through financial and non-financial rewards, increasing motivation and efficiency for optimal AI technology usage, developing individual skills by offering employee rewards, fostering collaboration through incentives, enhancing employee satisfaction and retention through appropriate incentives.



3	Encouraging teamwork and interaction among work teams	Promoting teamwork and collaboration, encouraging individuals to share information, experiences, and knowledge, using AI technologies to create a collaborative environment, developing communication skills through training and consulting, forming teams with diverse expertise and skills.
4	Managerial support for AI implementation	Necessary managerial support for strategic program execution, defining roles and responsibilities in AI adoption, providing financial, human, and technical resources for AI implementation, allocating budgets and hiring specialists for AI deployment, fostering a suitable organizational culture, managing change in AI-related processes, evaluating and tracking AI implementation and its impacts.
5	Defining corporate goals and values	Strategic alignment through clear corporate goals and values, communicating company objectives and values to employees, fostering commitment and motivation for AI adoption, prioritizing initiatives based on corporate objectives, organizing and coordinating operations by clarifying company goals and values.
6	Defining clear job roles and career paths	Aligning job requirements with AI, providing clear career paths and professional development for employees in AI fields, improving employee performance and efficiency in AI applications, creating a productive environment for maximizing AI benefits.
7	AI talent acquisition process	Analyzing organizational AI needs, identifying technical, professional, and cultural requirements, establishing AI talent acquisition strategies, selecting appropriate recruitment channels (e.g., job advertisement platforms), building an attractive employer brand, structuring effective recruitment and selection processes, integrating and training AI specialists within the corporate culture.
8	Providing educational opportunities	Expanding individual knowledge and awareness through employee training, empowering employees through AI education, strategically enhancing human resources with AI-related training, fostering innovation and creativity through AI education, increasing corporate competitiveness by upskilling employees in AI.
9	Creating a flexible work environment for AI experts	Establishing an adaptive and dynamic work environment for AI specialists, fostering innovation and creativity with flexible workspaces, supporting personal and professional growth through adaptable work settings, facilitating innovative projects through flexible work environments, increasing job satisfaction and motivation by offering a dynamic workspace for AI specialists.
10	Strengthening collaboration with universities and research centers	Gaining access to new knowledge and innovations through collaboration with academic institutions, enhancing skills and capabilities by working closely with universities, conducting joint projects with research centers, increasing the recognition and reputation of advertising firms in the industry, recruiting and expanding professional networks of academic talent.
11	AI integration with human resource management systems	Improving human resource processes by integrating AI into HRM systems, making data-driven decisions with AI, predicting workforce needs using AI, adopting advanced technologies in HRM, enhancing organizational efficiency by merging AI with HRM systems.
12	Developing automated systems and AI-driven automation	Expanding automation systems with a focus on AI, improving productivity through AI-driven automation, reducing errors and increasing accuracy through AI-powered automation, simplifying complex processes with AI-driven automation, making data-driven decisions with AI-powered automation, optimizing resource utilization with AI-based automation.
13	Expanding the use of AI-based recommendation systems	Enhancing decision-making through AI-based recommendation systems, optimizing recruitment processes using AI recommendation systems, gaining deeper workforce insights through AI-driven data analysis, improving employee satisfaction and performance using AI-based recommendations, adapting to rapid changes in the advertising industry through AI-based recommendation systems.
14	Using natural language processing (NLP) systems	Analyzing and processing textual data with AI-based NLP systems, optimizing workforce recruitment through NLP-based recommendations, improving hiring decisions using NLP, analyzing employee feedback and reviews with NLP, predicting employee behavior with AI and NLP, enhancing human interactions using NLP technologies.
15	Image and voice processing for detecting employee emotions and stress	Analyzing emotions from images and voices using AI-based image and voice processing, detecting stress levels through AI-driven image and voice analysis, predicting behaviors based on emotional analysis using AI, increasing employee productivity and satisfaction through emotion and stress recognition, utilizing smart feedback systems with image and voice processing.
16	Data collection and aggregation	Collecting statistical and performance data with AI, analyzing employee progress and performance using AI, predicting workforce needs through AI-driven data analysis, managing productivity and costs using AI-based data aggregation, processing big data and utilizing advanced AI algorithms.
17	Data preprocessing	Cleaning data through preprocessing, reducing dimensions and feature extraction with AI, identifying patterns and trends through AI-driven data preprocessing, predicting and analyzing employee behavior by combining data preprocessing with AI, managing risk and data security through preprocessing techniques.
18	AI-driven data analysis	Forecasting human resource needs using AI-based data analysis, analyzing employee performance through AI-driven analytics, recommending educational pathways using AI, predicting behaviors and team dynamics through AI-driven analysis, managing and improving HR processes using AI-based data analysis.
19	Using AI algorithms for forecasting and modeling	Utilizing AI algorithms for predictive modeling, forecasting workforce needs using advanced AI algorithms, improving decision-making processes with AI models, recommending management improvements using AI algorithms, developing advanced predictive models with AI, enhancing HR strategies through AI-driven data analysis.
20	Accuracy evaluation and model improvement	Evaluating model accuracy in strategic HR planning, enhancing models by assessing accuracy with AI, fine-tuning and optimizing models through accuracy assessment, improving prediction accuracy with AI-enhanced models.
21	Conducting AI specialization training for employees	Organizing AI training programs for employees, increasing employee knowledge and skills through AI specialization courses, optimizing technology usage through AI training, facilitating decision-making processes by providing AI education, strengthening company capabilities through AI specialization training.
22	Training for effective communication with AI developers	Enhancing AI comprehension through training for collaboration with AI developers, improving coordination between developers and HR teams, preventing errors and misunderstandings by fostering effective communication with AI developers, optimizing AI capabilities through enhanced communication with developers.



23	Developing a knowledge-sharing system within the company	Optimizing knowledge utilization and experience sharing through knowledge-sharing platforms, enhancing employee competencies via shared knowledge systems, facilitating decision-making through a collaborative knowledge-sharing system, accelerating work processes through knowledge-sharing platforms.
24	Assigning practical AI-related projects to teams	Enhancing expertise by assigning practical AI projects to specialized teams, driving innovation and progress through hands-on AI projects, facilitating knowledge transfer from expert teams to other employees, strengthening employee capabilities by engaging in AI-related projects.
25	Collaboration with AI specialists and consultants	Partnering with AI specialists and consultants, increasing expertise and experience through AI professionals, assessing organizational needs with AI consultants, implementing innovative solutions through AI expert collaboration, training and skill development via AI consultants, continuous performance evaluation and improvement through AI specialist partnerships.

In Table 2, the dimensions derived from the extracted secondary codes are reported.

Table 2. Dimensions Derived from Extracted Secondary Codes

No.	Research Dimensions	Extracted Secondary Codes
1	Organizational Culture Development	Encouraging efficiency and optimization in artificial intelligence usage
2		Providing incentives and rewards for AI technology adoption
3		Encouraging teamwork and interaction among work teams
4		Managerial support for AI implementation
5		Defining corporate goals and values
6	AI Talent Acquisition and Retention	Defining clear job roles and career paths
7		AI talent acquisition process
8		Providing educational opportunities
9		Creating a flexible work environment for AI experts
10	AI System Design for Enhancing Human Resource Processes	Strengthening collaboration with universities and research centers
11		AI integration with human resource management systems
12		Developing automated systems and AI-driven automation
13		Expanding the use of AI-based recommendation systems
14		Using natural language processing (NLP) systems
15	Data Analysis and Forecasting	Image and voice processing for detecting employee emotions and stress
16		Data collection and aggregation
17		Big data preprocessing
18		AI-driven data analysis
19		Using AI algorithms for forecasting and modeling
20	Training and Development	Accuracy evaluation and model improvement
21		Conducting AI specialization training for employees
22		Training for effective communication with AI developers
23		Developing a knowledge-sharing system within the company
24		Assigning practical AI-related projects to teams
25		Collaboration with AI specialists and consultants

The final research model is illustrated in Figure 2. In this study, four main dimensions were identified: leadership characteristics, leadership impact, trust in technology within the organization, and valuation and rewards. Additionally, 239 primary codes were extracted from 10 interviews, from which 20 secondary codes were derived. The final model is shown in Figure 1.



Figure 1. Final Model

4. Discussion and Conclusion

The findings of this study indicate that the dimensions of strategic human resource planning based on artificial intelligence development in advertising companies include organizational culture development, AI talent acquisition and retention, AI system design for enhancing human resource processes, data analysis and forecasting, and training and development. Additionally, the components of strategic human resource planning based on artificial intelligence development in the organizational culture development dimension include encouraging efficiency and optimization in AI usage, providing incentives and rewards for AI technology adoption, encouraging teamwork and interaction among work teams, managerial support for AI implementation, and defining corporate goals and values. The AI talent acquisition and retention dimension comprises defining clear job roles and career paths, the AI talent acquisition process, providing educational opportunities, creating a flexible work environment for AI specialists, and strengthening collaboration with universities and research centers.

The AI system design for enhancing human resource processes dimension consists of AI integration with human resource management systems, developing automated systems and AI-driven automation, expanding the use of AI-based recommendation systems, using natural language processing (NLP) systems, and image and voice processing for detecting employee emotions and stress. The data analysis and forecasting dimension includes data collection and aggregation, big data preprocessing, AI-driven data analysis, using AI algorithms for forecasting and modeling, and accuracy evaluation and model



improvement. Finally, the training and development dimension consists of conducting AI specialization training for employees, training for effective communication with AI developers, developing a knowledge-sharing system within the company, assigning practical AI-related projects to teams, and collaboration with AI specialists and consultants.

These findings suggest that strategic human resource planning and data analysis and forecasting are closely interrelated for several key reasons. Data-driven decision-making is crucial for strategic human resource planning, as data analysis enables managers to make well-informed and logical decisions based on existing information. Identifying trends and patterns through data analysis allows organizations to recognize workforce trends and needs, ensuring that strategic HR planning aligns with real market conditions and employee expectations. Forecasting future workforce needs is another essential function of data-driven HR planning, helping organizations anticipate workforce growth, required skill sets, and potential structural changes. Furthermore, employee performance assessment and HR process evaluation are enhanced through data analysis, allowing managers to identify strengths and weaknesses and implement improvements accordingly.

In today's dynamic and rapidly changing business environment, organizations face multiple challenges. Data analysis and forecasting empower organizations to respond promptly to these challenges and implement strategic solutions. The interconnection between data analysis and strategic human resource planning enables organizations to effectively manage their workforce and progress toward strategic objectives. These results align with prior findings (Ali & Kallach, 2024; Ghaderi et al., 2023).

Additionally, the study's findings reveal a strong link between strategic human resource planning and organizational culture development. This connection can be explained through several factors. Defining corporate goals and values is an integral part of strategic human resource planning, as these objectives shape and reinforce organizational culture by ensuring alignment between HR strategies and corporate values. Creating a positive work environment is another critical aspect, as organizational culture influences employee interactions and management relationships. Strategic human resource planning helps cultivate a supportive work environment where employees feel valued and motivated. Attracting and retaining talent is also facilitated by a strong organizational culture, which makes companies more appealing to skilled professionals. Strategic HR planning can introduce initiatives that strengthen organizational culture and improve talent retention.

Furthermore, fostering learning and innovation is crucial, as a robust organizational culture encourages continuous learning, teamwork, and creativity. Strategic human resource planning can integrate training and development programs that reinforce this culture. Organizations with a strong cultural foundation are also more adaptable to changes. Strategic HR planning must incorporate initiatives that prepare the workforce for transformations and challenges. Lastly, enhancing employee commitment and engagement is significantly influenced by organizational culture. Strategic human resource planning can strengthen commitment by implementing participatory programs and initiatives. The correlation between strategic human resource planning and organizational culture development enables organizations to advance toward their overarching goals and establish a positive and innovative work environment. These findings align with prior research (Nazimi et al., 2022; Sharma et al., 2022).

Based on the research findings, it is recommended that organizations implement internal awareness programs by organizing regular training sessions and informational meetings to enhance employees' understanding of AI's role in the advertising industry and its impact on future job functions and innovation. Developing targeted recruitment strategies using data analysis can help identify AI specialists with the specific skill sets required in the advertising industry and categorize them according to organizational needs. The utilization of AI-driven hiring systems can enhance recruitment efficiency by designing algorithms capable of filtering resumes and identifying the most suitable candidates based on skills, experience, and cultural fit. Establishing smart performance evaluation systems can help create AI-driven tools that analyze employee performance data and provide recommendations for professional development and career growth. Implementing intelligent HR dashboards is essential for displaying real-time key metrics such as employee satisfaction, turnover rates, and skill levels, enabling data-driven HR management. Organizations should also develop AI-based training programs that introduce interactive courses leveraging AI platforms to assess individual learning needs and deliver personalized educational content. The adoption of specialized AI tools specifically designed for HR management and the advertising industry, such as sentiment analysis tools and customer behavior prediction algorithms, can enhance decision-making processes. Ensuring that strategic HR planning models remain dynamic and capable of adapting to market fluctuations and emerging technologies is crucial for maintaining

competitiveness. Finally, designing an integrated roadmap that simultaneously addresses AI and HR objectives will help ensure the successful implementation of AI-driven HR planning models and their alignment with organizational goals.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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