

Employing AI-Enabled Sustainable HR Practices to Improve Marketing Strategies: A Applied Study

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Abstract

The research aims to measure the role of employing AI-Enabled Sustainable HR Practices (**AIESHR**) in enhancing marketing strategies (MAST) among employees in telecommunications companies (Zain and Asiacell). This objective was formulated to address an important issue expressed in a key question: What is the role of employing AIESHR in improving MAST among employees in telecommunications companies? The research adopted a descriptive-analytical approach in constructing its variables. To collect the necessary data, a questionnaire was used to identify variables and measure their levels within the sample. Accordingly, 100 questionnaires were distributed, of which 79 were returned, including 3 damaged questionnaires and 76 valid for analysis. To achieve the best results, the statistical analysis programme (SPSS) was used to obtain the required findings. The results showed a significant correlation and impact between AIESHR and the improvement of MAST. This indicates that the work environment in telecommunications companies is characterised by a high degree of continuous changes to formally keep pace with global artificial intelligence-related developments, ensuring the enhancement of MAST.

This, in turn, has contributed to improving business transactions and facing competition. The study also recommends that the concerned companies focus on improving their labour market attitudes by concentrating on the activities and competitive advantages they offer in a manner consistent with the community's income in which they operate, which in turn contributes to achieving long-term and short-term marketing objectives.

Keywords: Ai-Enabled Sustainable HR Practices, Marketing strategies, Telecommunications companies (Zain, Asiacell).

Introduction:

Organizations currently face a variety of challenges that affect their behaviours and motivate them to adopt effective strategies that distinguish them from their competitors in the environment in which they operate. Customers have different tastes, their needs increase and vary with technological advancements. The survival and growth of an organization depends on the successful and effective strategies it adopts based on its diagnosis of the external environment and its internal context, enabling it to identify threats, opportunities, weaknesses, and strengths and to leverage them in all competitive areas (Abduljabbar, 2022). In today's business environment, companies face increasing pressures to integrate sustainability as a core value to achieve economic success and social and environmental objectives. At the same time, new innovations in artificial intelligence have ushered in a digital era for human resource management, encompassing technologies that support sustainability goals in HR development. The integration of AI into HR functions has opened new horizons for companies to improve their performance and organisational efficiency, as well as employee performance and/or outcomes through the adoption of data-driven decision-making and automation (Thangaraju & Palani, 2025).

Similarly, artificial intelligence is bringing a radical transformation to how organisations manage their human capital. From recruitment and performance management to employee engagement and retention, AI tools provide automation, data-driven insights, and enhance decision-making capabilities (Gruetzemacher & Whittlestone, 2022). When used carefully and accurately, AI can support sustainable human resource management goals by reducing bias, promoting transparency, improving employee experiences, and making HR processes more productive and fair (Gupta, 2024). Sustainable human resource management is now recognised as a potential factor in developing both organisational resilience and competitive advantage, as well as in evidence-based sectors such as the information technology sector (Wang *et al.*, 2019).

On the other hand, this issue gains particular importance in the information technology sector, which is witnessing widespread adoption of electronic human resource management systems due to rapid technological change, high skill requirements, and evolving workforce needs. Human resource management practices and processes, supported by emerging artificial intelligence, contribute to creating human-centred work solutions (Orlando *et al.*, 2021). Sustainable management aims to achieve a balance between employee well-being, economic performance, and environmental responsibility. The focus is not limited to profitability alone but extends to ethics, social justice, and effective resource management (Saranya *et al.*, 2025).

Part One: Research Methodology

First: Research Problem:

The telecommunications sector in Iraq contributes significantly to improving the gross domestic product by generating high revenues, and this sector is witnessing a rapid transformation through the application of artificial intelligence

and sustainability measures. AI-supported human resource management practices enhance efficiency and employee performance (Pandey, 2024); however, research on their effects, especially in the context of Iraq's telecommunications sector, remains limited. This gap is due to a lack of understanding of AIESHR (recruitment and selection, training and development, performance management, organizational sustainability orientation, and employee empowerment and engagement) in improving MAST. This study comes at a critical time, as the information technology sector suffers from high employee turnover rates alongside growing demand for sustainable human resource management practices (Basu *et al.*, 2023).

The current research relies on the job requirements model and the resource-based theory to provide empirical evidence on the effectiveness of artificial intelligence in human resource management in the telecommunications sector in Iraq, offering broad insights into artificial intelligence as a key pillar in telecommunications-based human resource environments, and highlighting the process of creating AI-enhanced sustainable HR systems that inspire original work (Thangaraju & Palani, 2025). Hence, the research problem can be expressed in an significant question: What is the role of employing AIESHR in improving MAST among employees in telecommunications companies? Addressing this problem can contribute to improving company performance through digital transformation management and meeting sustainability requirements and workforce needs in the Iraqi telecommunications sector. The research also seeks to answer several important questions to understand the causes of the proposed problem:

- 1- What are AIESHR?
- 2- How can AI applications in human resource management and MAST be analyzed?
- 3- What are the ways to address the ethical and practical challenges of integrating AI?
- 4- Can successful case studies be presented?
- 5- What are the future pathways for the responsible use of AI?

Second: The importance of the research:

The current research is significant because of the disagreement over the effects of incorporating artificial intelligence into sustainable human resource management practices, because the rate of the rapid technological developments has exceeded the ability of academic research to keep pace with understanding and potentially misunderstanding the applications and effects of artificial intelligence in real-world human resource management, and because of the complexity of human behavior, organizational culture, and environmental considerations, which create further debate and challenge around the topic that demands a multidisciplinary approach to understanding the technological, psychological, and environmental dimensions of integrating artificial intelligence into sustainable human resource management practices.

The study also contributes to filling a research gap in the literature on the importance of the research. Hence, research in human resource management should not be disassociated from practice, but should offer more theoretical insights into the impact of AIESHR management on MAST, so that this correct understanding can guide organizations to develop strategies that are in harmony with global sustainability objectives.

Third: The objectives of the research:

The research aims to measure the role of employing AIESHR in improving MAST among employees in telecommunication companies (Zain & Asiacell), through:

- 1- Studying AIESHR.
- 2- Analysing the applications of artificial intelligence in human resource management and MAST.
- 3- Identifying ways to address ethical and practical challenges in integrating artificial intelligence.
- 4- Presenting successful case studies.
- 5- Proposing future paths for the responsible use of artificial intelligence.

Fourth: Hypothetical Schema and Hypothesis Development:

In light of defining the research problem, its significance, and objectives, preparing a hypothetical plan outlining the mechanism to address this problem is crucial. Therefore, Figure (1) illustrates the relationship between these variables included in the analysis. This relationship can be constructed through two variables:

Independent Variable: AIESHR Practices, measured through five dimensions: recruitment & selection, training & development, performance management, organizational sustainability orientation, employee empowerment and involvement.

Dependent Variable: Marketing strategies, measured through four dimensions: pricing, distribution channel management, marketing communications, and market planning.

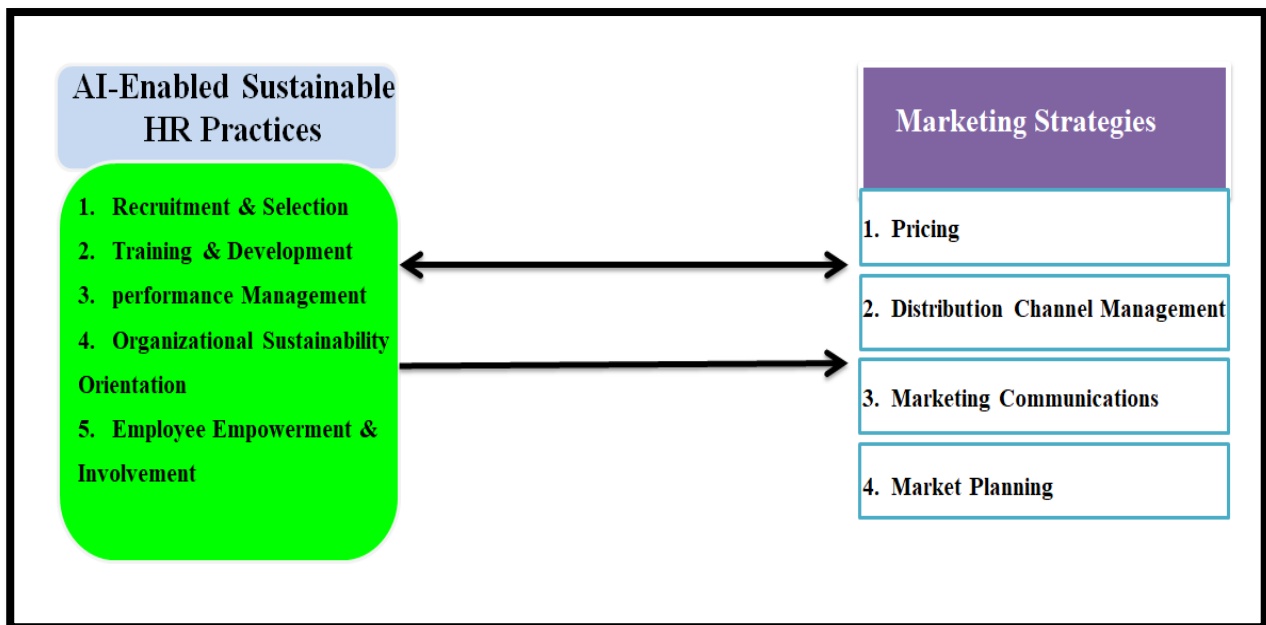


Figure (1) Research Hypothesis Diagram

Based on the hypothetical diagram, two hypotheses can be developed:

H1: There is a correlation between AIESHR and MAST. This hypothesis branches out into:

- 1- There is a correlation between the AI-enabled recruitment & selection dimension and MAST collectively.
- 2- There is a correlation between the AI-enabled training & development dimension and MAST collectively.
- 3- There is a correlation between the AI-enabled performance management dimension and MAST collectively.
- 4- There is a correlation between the Organizational sustainability orientation dimension and MAST collectively.
- 5- There is a correlation between the Employee empowerment & involvement dimension and MAST collectively.

H2: There is a significant impact of AIESHR on MAST. This includes:

- 1- There is an impact of the AI-enabled recruitment & selection dimension on combined MAST.
- 2- There is an impact of the AI-enabled training & development dimension on combined MAST.
- 3- There is an impact of the AI-enabled performance management dimension on combined MAST.
- 4- There is an impact of the Organizational sustainability orientation dimension on combined MAST.
- 5- There is an impact of the Employee empowerment & involvement dimension on combined MAST.

Fifth: Research Sample:

Determining the research location is extremely important due to its significant role in demonstrating the relevance of research topics. Based on this, focus was placed on the telecommunications sector in Iraq because of its important role in the country and its connection to all modern developments. Zain and Asiacell

companies represent an important pillar in the country. Accordingly, 100 questionnaires were distributed, of which 79 were returned, with 3 being damaged and 76 valid for analysis.

Part Two: Theoretical Aspect

First: Ai-Enabled Sustainable HR Practices

1. The Concept of Ai-Enabled Sustainable HR Practices:

Organisations around the world, including those in emerging economies, are adopting artificial intelligence to enhance human resources operations in line with sustainability requirements. This approach is known as AI-based sustainable human resource management, which integrates economic, environmental, and social sustainability principles into human resource practices, aiming to achieve a successful alignment between financial outcomes, environmental sustainability, and social justice. This strategy enables organisations to optimise resource utilisation, reduce environmental impact, and enhance employee well-being and inclusivity (Viswanathan & Kumar, 2024).

In today's constantly changing business environment, companies must be able to compete while also adhering to business ethics and sustainability. Human resource management, which was previously considered a purely administrative function, has gradually evolved into a strategic partner contributing to organisational success (Yadav *et al.*, 2025). Amid this transformation, the focus on sustainability in human resource management has gained significant attention. Sustainable human resource management refers to practices that not only support business objectives but also enhance employee well-being, social responsibility, and long-term corporate health. It focuses on balancing economic performance with the ethical, social, and environmental aspects of human resource policies (Hashmi & Ghai, 2025).

It is believed (Mahade *et al.* 2025) that integrating AI into human resource management practices helps to simplify decision-making processes in organisations and to improve overall performance by processing large amounts of data to find patterns and provide recommendations that help HR professionals achieve strategic objectives; however, this role is underexplored, especially in the higher education sector.

Sustainable human resource management refers to HR practices that lead to the long-term success of the organization, the well-being of its employees, and the integration of economic, ethical, environmental and social goals (Madero-Gómez *et al.*, 2023). While AI has been well documented in areas such as recruitment, performance tracking, and decision-making (Udayanan *et al.*, 2024), its role in sustainable human resource management is less clear, particularly in terms of its mediating effects on improving HR practices, streamlining activities that align with long-term objectives, and enabling better decision-making with actionable insights. On the other hand, rapid technological advancement, particularly the acceptance of false intelligence in HRM, has led to fundamental shifts in HR practices and operations (Bughin *et al.*, 2018). With the increasing digitalisation of HR processes in companies, there is a growing need to understand the impact of artificial intelligence on all aspects of human resources, including

employee productivity, health and safety, compensation, ease of work, and receiving instant feedback (Urba *et al.*, 2022). The application of artificial intelligence in organisations is considered the essence of the twenty-first century, as it has transformed organisational models, reshaped work rules, and paved the way for a future inspired by innovation, sustainability, and efficiency (Thangaraju & Palani, 2024). From the foregoing, it can be said that AIESHR represent the outcome of computerised practices and skills and continuous interaction with colleagues in order to develop their internal capabilities, thereby contributing to the improvement of informed strategic decision-making.

2. The Importance of Ai-Enabled Sustainable HR Practices:

The importance of sustainable human resource management is evident in several factors. Today, organisations face intense pressures from stakeholders – including employees, customers, investors, and regulators – to act responsibly and treat everyone with respect and fairness (Jamil *et al.*, 2023). Moreover, with the accelerating pace of global disruptions, such as pandemics, climate crises, and economic fluctuations, companies realise that traditional HR practices may not be sufficient to ensure resilience. This has led to a shift towards more forward-looking, adaptable, and ethically grounded HR strategies (Kim *et al.*, 2022). Human resource management is also one of the many applications in which AIESHR are changing how organisations meet international sustainability standards. These practices encompass economic, environmental, and social aspects, based on the triple bottom line concept, and focus on balancing financial sustainability, environmental responsibility, and social equity (Purvis *et al.*, 2019). AIESHR also enhance engagement levels through customised learning, an inclusive work culture, and data-driven feedback loops, all of which in turn stimulate motivation and align with organisational goals (Thangaraju & Palani, 2024).

3. Dimensions of Ai-Enabled Sustainable HR Practices:

AIESHR can be measured through several dimensions (Thangaraju & Palani, 2025):

- a. **AI-enabled recruitment & selection:** AI-based recruitment systems use advanced algorithms to reduce bias in hiring by 37% during the automated screening process, enhance predictive accuracy by 36% when screening CVs, and analyse more than 10,000 data points per candidate in the IT sector in India to improve the technical fit with organisational needs, all of which are made more transparent on digital platforms with chatbot interfaces and recruitment in line with environmental, social, and corporate governance standards. AI taps into creative potential by being proactively flexible in thought, which can contribute to greater innovation outcomes. It solves the IT talent shortage in India by using effective mass screening methods, coupled with analytics to predict performance in innovation roles (Basu *et al.*, 2023).
- b. **AI-enabled training & development:** Job training and development influence employees' willingness to engage (Sokolović *et al.*, 2023), as helping employees develop their work-related skills through training programmes, knowledge development, and building their confidence all

impact their motivation to become more engaged in the workplace. When employees' capabilities are enhanced (Setyawati *et al.*,2022), this contributes to boosting their potential for growth, which in turn leads to increased job satisfaction and the achievement of their goals, as well as fulfilling development aspirations that rely on identifying the skills needed in the training environment. Consequently, this improves employees' level of engagement (Wai *et al.*,2024).

- c. **AI-enabled performance management:** Over 35 performance metrics can be tracked using real-time analytics dashboards that can reduce the bias of evaluation by 40% in Indian IT organisations, and constant performance monitoring using AI-relevant tools, for instance, provides constant clarity on roles, so that reviews might not be needed, which is a great advantage for the fast-paced IT sector. The integration of sustainability metrics aligns key performance indicators with the Sustainable Development Goals, which increases engagement in green innovation by 28%.

They also get clear and personalized feedback, managers get specific coaching insights, and creative performance improves when innovation expectations are clear (Thangaraju & Palani,2025).

- d. **Organizational sustainability orientation:** The integration of environmental, social, and governance standards into the cultures of organisations has led to improved employer branding, better employee retention rates, and more employee pride and empowerment in the telecommunications sector in Iraq. These are sustainable practices, and it has been demonstrated that environmental, social, and governance values drive intrinsic motivation, which has led to 35% higher innovation engagement in Indian IT companies that are using sustainability initiatives. This is because true integration is still important, and when sustainability is not only about compliance but also part of the daily routines, organisations create innovative solutions to sustainability issues. Employees show more advanced innovation testing in these companies, from strengthened psychological commitments that lead to two-way innovations (Tambe *et al.*, 2019).

- e. **Employee empowerment & involvement:** Employee empowerment & involvement represents an important pillar through which human resource management practices can be transformed into tangible performance outcomes. Its primary role is to provide employees with the opportunity to express their opinions, which is an aspect of employee participation, particularly noteworthy in the field of sustainable HRM (Jia & Hou, 2024). Moreover, enhancing worker contribution and receiving their feedback amplifies the impact of sustainable human resource management on both worker engagement and presentation (Paulet *et al.*, 2021).

Second: Marketing Strategies

1. The Concept of Marketing Strategies:

Marketing receives attention from various types of organisations, as well as from individuals since they are the target of any organisation's activities, even if the level of engagement of these organisations in the practical application of marketing varies. The marketing function is very important and essential to achieve short, medium, and long-term results for producing organisations. This function conducts various activities that integrate with other functions such as production, finance, and human resources. Success in all the aforementioned functions alone is not sufficient for the survival and continuity of the organisation; rather, success is completed by the efforts of the marketing function and its activities, which are the foundation of the organisation's survival as they are the main source of its revenues and profits and thus its continuity (Alazzaz, 2025). Furthermore, the business environment today is characterised by a high degree of continuous change due to economic, social, and technological shifts, requiring institutions of all types and forms to be prepared for these changes by establishing strategies at the organisational level and MAST at the level of their marketing activities that can operate in this changing trade and face competition (Abduljabbar, 2022).

MAST refer to the deliberate and organised labors made by companies and sales agencies to influence consumers' buying decisions. These plans include a variety of publicity tools for digital and old-style publicity, sales promotions, brand putting, price discounts, backings, and customer appointment creativities (Mohamed, 2025).

Marketing strategy represents an administrative and social process through which individuals obtain their needs and desires by designing and exchanging products, communications, values and benefits with others (Safaat,2023). Marketing strategy within the framework of strategic planning refers to the process of developing and maintaining an adaptive approach that links the organisation's goals with its skills and resources (material, human and technological) and their suitability for opportunities available in a constantly changing and unstable market (Ramirez,2024). This means helping the organisation organise its activities to ensure continuity despite the impact of unexpected factors and conditions that may affect its operations (Steen *et al.*,2024). These factors may subsequently lead the organisation to take one of three decisions: expansion, continuation or project termination (Al-Sayed & Ghaba,2025).defined (Jilmi Astina & Yudo Wibowo,2020) marketing strategy as the way that enables organisations to position their operations within a highly competitive framework, thereby outperforming their competitors in the same sector. pointed out that (Subagio *et al.*,2022) ; Hamid,2025) a marketing strategy represents creating value for the organisation through its efforts and adopting new and innovative methods to mobilise its diverse resources to achieve success. Based on the above, it can be said that a marketing strategy constitutes a combination of plans, skills and practices adopted by an organisation to achieve its objectives in a way that contributes to enhancing its competitive level and market share within the work environment.

2. The Importance of Marketing Strategies:

The importance of MAST stems from several key pillars:

- a. It is the framework through which marketing opportunities are revealed and organisational strengths are identified, in addition to the management through which these opportunities are utilised and these strengths are activated.
- b. It is considered a fundamental management aspect within the organisation, determining its directions accurately in responding to external environmental changes, particularly in facing competitors.
- c. It allows the organisation's management to evaluate and determine its internal business and the level of harmonisation achieved through performance across different departments of the organisation (Abduljabbar, 2022).
- d. Increasing brand awareness.
- e. Building a customer relationship based on trust and enhancing loyalty.
- f. Creating an audience for the organisation and working on attracting new customers (Lesmana, 2025).
- g. Creating a need for a specific product.
- h. Testing product and business ideas (Nader *et al.*, 2025).

3. The Dimensions of Marketing Strategies:

MAST can be measured through several dimensions (Abduljabbar, 2022):

- a. **Pricing:** Pricing is careful the most challenging task for bosses in any organisation because it is topic to a number of constantly altering factors outside the organisation's control. There are several pricing approaches based on request, cost, competition and creation configuration that can lead to innovative pricing (Agustian *et al.*, 2023), and pricing plays a crucial role in shaping the brand image by increasingly judging companies on the transparency and fairness with which they handle price as a marketing variable. Setting the price of a product or service depends on how consumers perceive it, considering the brand's distribution, influencing the choice of marketing channel, affecting how it is promoted, and whether it impacts the level of customer service expected by the targeted customers (Suparjo & Dana, 2024).
- b. **Distribution Channel Management:** Distribution channels represent an important part of delivering products to consumers (Mohsen *et al.*, 2023), and distribution also refers to the pathway through which goods and communications flow in one direction (from the seller to the consumer), and the payments generated flow in the opposite direction (from the consumer to the seller), which will lead to increased costs for the organisation (Sutaguna *et al.*, 2023).
- c. **Marketing Communications:** Marketing communication represents the process of exchanging information and messages between organisations and their customers or target audience with the aim of boosting sales and building business relationships (Meha *et al.*, 2022). Marketing communication capabilities are considered one of the key factors for the success of any marketing strategy, encompassing a set of skills and tools that

help effectively convey the marketing message to potential customers (Sudirjo,2023).

- d. Market Planning:** Marketing planning capabilities are an essential part of the marketing process, as they help organisations develop effective strategies to achieve their business goals (Mikalef *et al.*, 2023). Marketing planning requires strategic vision and thorough analysis of the market and customers, as well as setting objectives and choosing the appropriate means to achieve them. Marketing planning capabilities encompass a range of skills and abilities that the marketing team needs to succeed (Vehbi *et al.*, 2025).

Part Three: Practical Aspects:

First: Coding and Characterizing Variables:

This paragraph highlights the importance of introducing the booklover, authors, and investigators to the research variables and the consequences they current, by replacing these variables with a set of codes to ease their analysis and clarification accurately, obviously and objectively. Table (1) illustrates the coding of the research variables.

Table (1) Coding of Research Variables

Variables	Dimensions	NO.	The Code		Source
Ai-Enabled Sustainable HR Practices	recruitment & selection	3	AIESHR	RSE	Thangaraju& Palani,2025
	training & development	3		TRD	
	performance management	3		PMS	
	Organizational sustainability orientation	3		OSO	
	Employee empowerment & involvement	3		EEI	
Marketing strategies	Pricing	3	MAST	PRI	Abduljabbar,2022
	Distribution Channel Management	3		DCM	
	Marketing Communications	3		MCO	
	Market Planning	3		MPL	

Second: Normality Test for the Study:

The results of Table (2) designate that the normalization test for retrieved data is acceptable, and that the significance values exceed 0.05. Therefore, it can be decided that the employee data complements the usual delivery, allowing the research findings to be generalized to the studied sample population.

Table (2) Results of the Normality Test for Internal Variables

	Dimensions								
Kolmogorov-Smirnov Z	RSE	TRD	PMS	OSO	EEI	PRI	DCM	MCO	MPL
	0.247	0.239	0.251	0.249	0.273	0.270	0.312	0.288	0.280
	0.096					0.177			
Sig.	0.128	0.165	0.103	0.157	0.143	0.145	0.168	0.129	0.157
	0.161					0.177			

Third: Exploratory Factor Analysis:

One of the most critical statistical tests to determine the relationships among variables and latent factors is exploratory factor analysis, which aims to determine which factors describe the variables, with the statistical loading coefficient of the variables not recommended to be less than 0.60 (Chan *et al.*, 2007). Table 3 shows that the standardised loading coefficients for items designed to measure the variables AIESHR and MAST are acceptable, with the loading coefficient exceeding 0.60 at a significance level less than 0.00001, meaning that the items effectively represent the variable.

Table (3) Exploratory Factor Analysis Saturations for Research Variables

Component Matrix									
NO.	AIESHR					MAST			
RSE1	0.946								
RSE2	0.876								
RSE3	0.856								
TRD1		0.896							
TRD2		0.902							
TRD3		0.839							
PMS1			0.916						
PMS2			0.853						
PMS3			0.879						
OSO1				0.873					
OSO2				0.856					
OSO3				0.871					
EEI1					0.818				
EEI2					0.935				
EEI3					0.978				
PRI1						0.849			
PRI2						0.806			
PRI3						0.832			
DCM1							0.814		
DCM2							0.889		
DCM3							0.890		
MCO1								0.805	

MCO2								0.837	
MCO3								0.844	
MPL1									0.906
MPL2									0.899
MPL3									0.927

Fourth: Testing the Reliability of the Measurement Instrument:

The results presented in Table (4) indicate that the measurement tool has internal consistency and relative reliability with an overall value of 0.958, with the research variables achieving reliability values above 0.70, specifically 0.950 for the AIESHR variable, and 0.933 for MAST variable. This indicates agreement of the investigation example's responses with survey and confirms that the dimension tool items explain the intended objectives.

Table (4) Cronbach's Alpha Coefficients for Internal Variables

Variables	Cronbach's Alpha		
RSE	0.909	0.950	0.958
TRD	0.797		
PMS	0.884		
OSO	0.900		
EEI	0.846		
PRI	0.887	0.933	
DCM	0.910		
MCO	0.925		
MPL	0.850		

Fifth: Descriptive Statistics of the Data: The results in Table (5) designate that the variable AIESHR got a mean of 3.56 with a S.D of 0.64. The significance of this variable stemmed from the focus on the AI-enabled recruitment & selection (RSE) dimension, which contributed to achieving a mean of 3.73 and a S.D of 0.77, while the Employee empowerment & involvement (EEI) dimension ranked last with a mean of 3.45 and a S.D of 0.79. This suggests that the concerned telecommunications companies focus on leveraging their AI-based capabilities as a key force to increase their productivity and efficiency, which requires enhancing measures to reduce waste to ensure the promotion of sustainable economic growth. As shown in Table (5), the variable MAST obtained a mean score of (3.54) with a S.D of (0.67). The importance of this variable stemmed from the focus on the Market Planning (MPL) dimension, which contributed a mean score of (3.64) and a S.D of (0.76). In contrast, the Marketing Communications (MCO) dimension ranked last with a mean score of (3.46) and a S.D of (0.76). This indicates that the surveyed companies are keen on using artificial intelligence applications to manage human resources affairs by performing recruitment, hiring, and

performance evaluation functions, providing algorithms that contribute to building the decision tree and modelling within the company.

Table (5) Descriptive Analysis

NO.	S.D	Mean	NO.	S.D	Mean	NO.	S.D	Mean
RSE1	3.59	1.03	OSO2	3.48	0.97	DCM2	3.52	0.98
RSE2	4.12	0.76	OSO3	3.44	1.12	DCM3	3.55	0.94
RSE3	3.47	1.22	OSO	<u>3.61</u>	<u>0.74</u>	DCM	<u>3.57</u>	<u>0.79</u>
RSE	<u>3.73</u>	<u>0.77</u>	EEI1	3.49	1.04	MCO1	3.54	0.92
TRD1	3.46	0.78	EEI2	3.42	0.9	MCO2	3.51	0.94
TRD2	3.52	1.08	EEI3	3.45	1.11	MCO3	3.33	1.01
TRD3	3.38	1.21	EEI	<u>3.45</u>	<u>0.79</u>	MCO	<u>3.46</u>	<u>0.76</u>
TRD	<u>3.45</u>	<u>0.69</u>	AIESHR	<u>3.56</u>	<u>0.64</u>	MPL1	3.44	1.07
PMS1	3.55	1.03	PRI1	3.55	0.88	MPL2	3.52	0.88
PMS2	3.42	1.14	PRI2	3.34	1.09	MPL3	3.97	0.93
PMS3	3.72	0.92	PRI3	3.54	1.06	MPL	<u>3.64</u>	<u>0.76</u>
PMS	<u>3.56</u>	<u>0.8</u>	PRI	<u>3.48</u>	<u>0.74</u>	MAST	<u>3.54</u>	<u>0.67</u>
OSO1	3.92	0.97	DCM1	3.64	0.88	Standard Deviation (S.D)		

Sixth: Hypothesis Testing:

H1: There is a correlation between AIESHR and MAST.

Table (6) shows a significant correlation between AIESHR and MAST, indicating a strong correlation value of 0.814, which represents the overall relationship between these variables. This hypothesis is strongly supported due to the focus of employees in telecommunications companies on prioritising the relationships between the dimensions of these variables, with correlation strengths ranging from 0.572 between the AI-enabled training & development dimension and MAST combined, to 0.806 between the AI-enabled performance management dimension and MAST combined. This indicates a significant correlation and impact of AIESHR on improving MAST, meaning that the work environment in telecommunications companies is characterised by a high degree of continuous changes to formally adapt to global and AI-related developments, thereby ensuring the enhancement of MAST. This, in turn, has contributed to improved business dealings and competitiveness.

Table (6) Testing of Research Hypotheses

Hypotheses	Sub-Hypotheses		Main Hypotheses
H1	1	0.716 ^{**}	0.814 ^{**}
	2	0.572 ^{**}	
	3	0.806 ^{**}	
	4	0.699 ^{**}	
	5	0.637 ^{**}	

Source: SPSS output

H2: There is a significant effect of AIESHR on MAST.

The results in Table (7) show a significant impact of AIESHR on MAST, as an increase of one unit in AI-supported sustainable resources contributes to enhancing MAST by (0.851) with a standard error of (0.063) and a critical value of (13.508).

The research findings also indicate that AIESHR explain (0.663) of the variance in MAST, meaning that predictive decision-making in human resource management significantly enhances organisational sustainability and the efficiency of HR practices in the telecommunications sector.

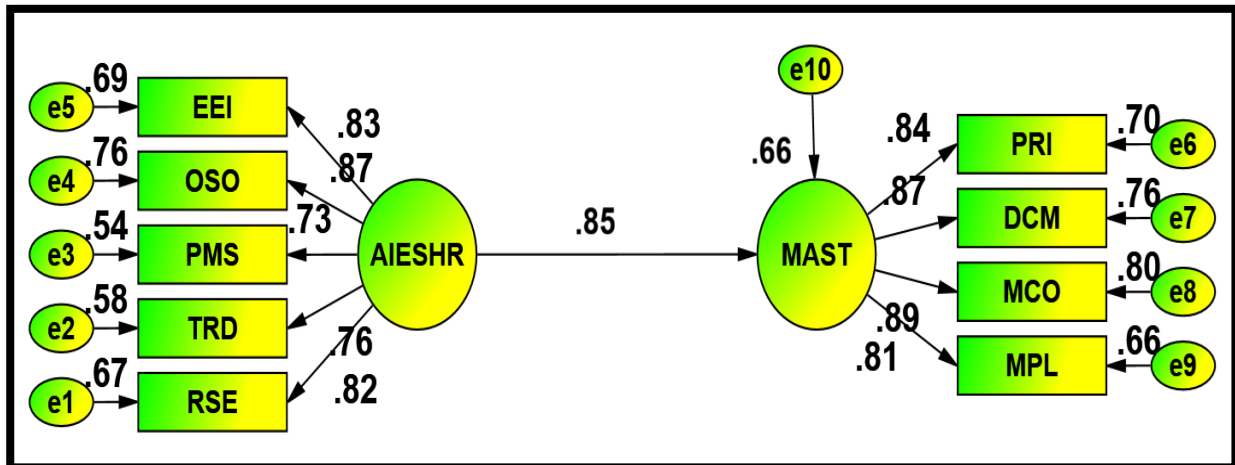


Figure (2) Structural Model of the Impact of AIESHR on MAST

Table (7) Final Results of the Impact of AIESHR on MAST

Hypotheses	Path			Estimate	S.E.	C.R.	R ²	P
H2	AIESHR	--->	MAST	0.851	0.063	13.508	0.66.	0.000

Part Four: Conclusions and Recommendations

First: Conclusions

- 1- There is a significant correlation and impact between AIESHR in improving MAST, indicating that the work environment in telecommunications companies is characterised by a high degree of continuous changes to formalise adaptation to global and AI-related developments in order to ensure the enhancement of MAST, which in turn contributes to improving business dealings and facing competition.
- 2- The results showed that predictive decision-making in human resource management significantly enhances the sustainability of institutions and the efficiency of HR practices in the telecommunications sector.
- 3- Telecommunications companies focused on leveraging their AI-based capabilities as a key driver to increase productivity and efficiency, which requires strengthening measures to reduce waste and losses to ensure sustainable economic growth.
- 4- The surveyed companies are keen on using artificial intelligence applications to manage human resources affairs through carrying out recruitment, hiring, and performance evaluation functions, which provides algorithms that contribute to decision tree building and modelling within the company.
- 5- The surveyed companies are keen on capitalising on the successful experiences of global companies that have applied artificial intelligence techniques and reflecting that in training their employees, which enhances human resource efficiency and builds infrastructure in terms of devices,

applications, and software to ensure the successful implementation of AIESHR, thereby improving MAST.

Second: Recommendations:

- 1- Companies concerned should focus on improving their labour market trends by concentrating on the activities and competitive advantages they offer in a manner that aligns with the income of the community in which they operate, which in turn contributes to achieving marketing goals in both the short and long term.
- 2- The surveyed companies should focus on viewing the application of artificial intelligence not merely as a technological upgrade, but as a strategic shift towards flexibility, while ensuring that human values and long-term sustainability remain at the core of their operations.
- 3- Companies concerned should focus on implementing training courses, workshops, and seminars for their employees in the field of artificial intelligence to develop their capabilities and performance and keep up with developments in the business environment and labour market.
- 4- The necessity of providing the material requirements needed to activate and implement sustainable human resources practices related to artificial intelligence and its utilisation in a way that contributes to accomplishing tasks faster and more accurately, which requires direct oversight by the company management.
- 5- The necessity of enforcing regulations and legislation specific to the application of human resources practices in the field of artificial intelligence by encouraging employees to develop their internal capabilities.

Third: Future Prospects for the Research:

Based on the results presented by the current research and the recommendations proposed, the future prospects of the current study focus on emphasising artificial intelligence as one of the main forces that can create a competitive advantage in the labour market for relevant companies, which contributes to enhancing digital human resource capabilities. Accordingly, the future prospects of the research can be considered through studying the following areas:

- 1- The role of AI-based human performance evaluation in improving knowledge sharing capabilities.
- 2- Enhancing the reality of digital human resources through the investment of AI practices.
- 3- Employing AI-supported self-efficacy to improve the cognitive maturity of employees.

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