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 Plot No. 6, Sector-25, Rohini, Delhi-110085
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LIST OF PUBLICATIONS

2025-26

PUBLICATIONS IN CONFERENCES

NAME OF THE FACULTY	CONFERENCE ATTENDED/ PAPER PRESENTED	NAME, VOLUME, YEAR OF THE JOURNAL	No.
Ms. Asha Kumari	Title of the Invention: AI-Powered ESG Talent & Investment Analytics: Enhancing Job Performance for sustainable Workforce and Strategic Growth	FORM 2: The Patents Act 1970 (39 of 1970) and the Patents Rules, 2003 Complete Specification (See section 10 and rule13)	1
Ms. Asha Kumari	The Patent Office Journal No. 49/2025 Dated 05/12/2025	Publication of the Patent Office	2
Dr. Meenakshi Kaushik	Beyond Followers: AI-Driven Sentiment Analysis for Effective Influencer Selection	National Conference Proceedings on “Artificial Intelligence and Digital Transformation: Shaping the Future of Business, Technology and Society”, Organized by DIAS on 07.02.2026. (In Print), Cambridge Scholars Publishing Ltd. is Registered in England, Reg. No. 04333775, VAT No. 108280727, ISBN: 978-1-0364-8536-8 ISBN (Ebook): 978-1-0364-8537-5	3
Ms. Neha Solanki	Artificial Intelligence and Digital Transformation: Shaping the Future of Work, Organizations, and Society	National Conference Proceedings on “Artificial Intelligence and Digital Transformation: Shaping the Future of Business, Technology and Society”, Organized by DIAS on 07.02.2026. (In Print), Cambridge Scholars Publishing Ltd. is Registered in England, Reg. No. 04333775, VAT No. 108280727, ISBN: 978-1-0364-8536-8 ISBN (Ebook): 978-1-0364-8537-5	4
Dr. Komal Jindal	Exploring Cultural Challenges in International Business: A Quantitative Case Study of Tata Motors in the UK	National Conference Proceedings on “Artificial Intelligence and Digital Transformation: Shaping the Future of Business, Technology and Society”, Organized by DIAS on 07.02.2026. (In Print), Cambridge Scholars Publishing Ltd. is Registered in England, Reg. No. 04333775, VAT No. 108280727, ISBN: 978-1-0364-8536-8	5



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Ms. Juhi Ahuja,	The Role of Artificial Intelligence In Transforming Financial Sector	National Conference Proceedings on “Artificial Intelligence and Digital Transformation: Shaping the Future of Business, Technology and Society”, Organized by DIAS on 07.02.2026. (In Print), Cambridge Scholars Publishing Ltd. is Registered in England, Reg. No. 04333775, VAT No. 108280727, ISBN: 978-1-0364-8536-8 ISBN (Ebook): 978-1-0364-8537-5	6
Ms. Nikita Jain	Transformation: A Conceptual Framework for Strategic and Ethical Value Creation	National Conference Proceedings on “Artificial Intelligence and Digital Transformation: Shaping the Future of Business, Technology and Society”, Organized by DIAS on 07.02.2026. (In Print), Cambridge Scholars Publishing Ltd. is Registered in England, Reg. No. 04333775, VAT No. 108280727, ISBN: 978-1-0364-8536-8 ISBN (Ebook): 978-1-0364-8537-5	7
Ms. Ankita Gulia	Government Initiatives and Policies on AI in Indian Education (NEP 2020 perspective)	National Conference Proceedings on “Artificial Intelligence and Digital Transformation: Shaping the Future of Business, Technology and Society”, Organized by DIAS on 07.02.2026. (In Print), Cambridge Scholars Publishing Ltd. is Registered in England, Reg. No. 04333775, VAT No. 108280727, ISBN: 978-1-0364-8536-8 ISBN (Ebook): 978-1-0364-8537-5	8
Dr. Deepa Khatri	Impact of AI-Enabled Digital Workspaces on Mental Health of Employees	National Conference Proceedings on “Artificial Intelligence and Digital Transformation: Shaping the Future of Business, Technology and Society”, Organized by DIAS on 07.02.2026. (In Print), Cambridge Scholars Publishing Ltd. is Registered in England, Reg. No. 04333775, VAT No. 108280727, ISBN: 978-1-0364-8536-8 ISBN (Ebook): 978-1-0364-8537-5	9

FORM 2
THE PATENTS ACT 1970 (39 of 1970)
AND
The Patents Rules, 2003

COMPLETE SPECIFICATION
(See section 10 and rule13)

TITLE OF THE INVENTION

AI-POWERED ESG TALENT & INVESTMENT ANALYTICS: ENHANCING JOB
PERFORMANCE FOR SUSTAINABLE WORKFORCE AND STRATEGIC GROWTH

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the following specification particularly describes the invention and the manner in which it is to be performed.

FIELD OF INVENTION

The present invention relates to the field of artificial intelligence-driven workforce and investment management systems. More particularly, it pertains to AI-powered Environmental, Social, and Governance (ESG) talent and investment analytics designed to enhance job performance, optimize workforce sustainability, and support strategic organizational growth.

BACKGROUND OF THE INVENTION

In recent years, organizations across industries are facing growing pressure to integrate Environmental, Social, and Governance (ESG) principles into their business strategies. While regulatory frameworks, investors, and stakeholders increasingly demand sustainable practices, companies struggle to align their workforce capabilities and investment decisions with these evolving requirements. Traditional talent management systems focus primarily on productivity and performance metrics, often neglecting ESG-linked skills, values, and competencies that are critical for building a sustainable workforce. Similarly, investment analysis tools emphasize financial growth without adequately accounting for ESG-driven risks and opportunities, leading to gaps in long-term strategic planning.

The lack of integrated solutions results in several challenges, such as difficulty in identifying ESG-oriented talent, mismatched workforce development strategies, and limited visibility into how investments contribute to sustainability objectives. Companies often rely on fragmented tools for HR analytics, ESG reporting, and financial forecasting, which operate in silos and fail to provide actionable insights. This fragmentation hampers organizations from making data-driven decisions that balance employee performance, social responsibility, and economic growth. Furthermore, the absence of predictive insights into ESG-linked workforce performance leads to missed opportunities in creating resilient, future-ready teams.

To address these challenges, the present invention proposes an AI-powered ESG talent and investment analytics platform. By combining advanced machine learning models, natural language processing, and predictive analytics, the system integrates

workforce performance data with ESG metrics and investment patterns. This unified framework not only identifies and nurtures ESG-aligned talent but also guides strategic investments that enhance organizational sustainability. The invention solves the problem of disjointed analytics by providing a holistic, data-driven approach that improves job performance, fosters a sustainable workforce, and drives long-term strategic growth.

OBJECTS OF THE INVENTION

Some of the objects of the present disclosure, which at least one embodiment herein satisfies, are as follows.

It is an object of the present disclosure to ameliorate one or more problems of the prior art or to at least provide a useful alternative

An object of the present disclosure is to provide an AI-powered system that integrates workforce talent analytics and investment analytics with ESG principles to enable data-driven decision-making.

Another object of the present disclosure is to enhance employee performance and productivity by identifying skill gaps, predicting workforce requirements, and recommending personalized reskilling and upskilling pathways.

Still another object of the present disclosure is to improve workforce sustainability by promoting ESG-aligned practices, diversity, inclusivity, and employee well-being.

Another object of the present disclosure is to optimize investment strategies by combining financial performance metrics with ESG compliance and risk assessment for sustainable capital allocation.

Still another object of the present disclosure is to enable predictive and prescriptive analytics for workforce and investment planning, facilitating proactive rather than reactive organizational strategies.

Still another object of the present disclosure is to provide bias detection and mitigation in recruitment, evaluation, and promotion processes, ensuring fair and equitable human resource management.

Yet another object of the present disclosure is to harmonize data from multiple

sources, including employee records, financial reports, ESG databases, and regulatory frameworks, into a unified analytical platform.

Yet another object of the present disclosure is to provide real-time, actionable insights through interactive dashboards, KPI tracking, scenario simulations, and automated ESG-compliant reporting.

Yet another object of the present disclosure is to continuously update workforce and investment recommendations using reinforcement learning and adaptive AI algorithms based on actual outcomes and feedback.

Yet another object of the present disclosure is to create long-term strategic value for organizations, employees, investors, regulators, and society by enabling sustainable growth, responsible investments, and ESG-aligned workforce development.

Other objects and advantages of the present disclosure will be more apparent from the following description, which is not intended to limit the scope of the present disclosure.

SUMMARY OF THE INVENTION

The following presents a simplified summary of the invention in order to provide a basic understanding of some aspects of the invention. This summary is not an extensive overview of the present invention. It is not intended to identify the key/critical elements of the invention or to delineate the scope of the invention. Its sole purpose is to present some concept of the invention in a simplified form as a prelude to a more detailed description of the invention presented later.

The present invention is generally directed to an AI-powered system and method for integrating Environmental, Social, and Governance (ESG) principles with workforce talent analytics and investment analytics, enabling organizations to enhance job performance, build a sustainable workforce, and achieve long-term strategic growth.

An embodiment of the present invention includes a data acquisition and preprocessing module configured to collect, clean, and harmonize structured, semi-structured, and unstructured data from employee records, financial reports, ESG databases, regulatory sources, and sustainability disclosures.

5 Another embodiment of the invention comprises a talent analytics engine that evaluates employee skills, performance, and ESG alignment, predicts workforce requirements, identifies skill gaps, and provides personalized recommendations for training, reskilling, and upskilling aligned with ESG objectives.

10 Yet another embodiment of the invention is an investment analytics engine configured to analyze financial portfolios alongside ESG metrics, assess sustainability-related risks, perform scenario simulations, and optimize capital allocation for long-term ESG-compliant investment strategies.

15 Yet another embodiment of the invention is an ESG integration module that harmonizes workforce and investment analytics, applying weighted ESG scoring models to ensure that employee development and investment decisions are aligned with environmental, social, and governance principles.

20 Yet another embodiment of the invention is a central AI analytics core employing machine learning, natural language processing, predictive modeling, graph neural networks, and reinforcement learning to generate actionable insights, adaptive recommendations, and continuously refined ESG scoring based on real-world outcomes.

25 Yet another embodiment of the invention is a decision-support interface providing interactive dashboards, KPI tracking, scenario planning tools, and automated ESG-compliant reporting to enable executives, HR managers, and investment analysts to visualize workforce performance, investment outcomes, and ESG compliance in real time.

DETAILED DESCRIPTION OF THE INVENTION

30 The following description is of exemplary embodiments only and is not intended to limit the scope, applicability or configuration of the invention in any way. Rather, the following description provides a convenient illustration for implementing exemplary embodiments of the invention. Various changes to the described

embodiments may be made in the function and arrangement of the elements described without departing from the scope of the invention.

5 The present invention relates to an advanced artificial intelligence (AI)-powered system and method designed to integrate Environmental, Social, and Governance (ESG) principles with workforce talent analytics and investment analytics to enhance job performance, establish a sustainable workforce, and drive long-term strategic growth. The invention addresses the increasing global demand for sustainability, regulatory compliance, and ethical business practices by providing a
10 unified, intelligent platform capable of analyzing, predicting, and improving both human capital development and financial decision-making through ESG-aligned metrics. Traditional systems often operate in silos, with HR analytics, financial performance, and ESG reporting being handled separately, which results in limited visibility, suboptimal decision-making, and missed opportunities for sustainable
15 growth. The present invention overcomes these limitations by integrating these domains into a comprehensive AI-powered framework, offering predictive and prescriptive insights to organizations of varying sizes and sectors.

20 The system comprises a modular architecture, including a data acquisition and preprocessing module, a talent analytics engine, an investment analytics engine, an ESG integration module, and a decision-support interface, all interconnected through a central AI analytics core. The AI core employs machine learning algorithms, predictive modeling, natural language processing, and reinforcement learning to provide actionable insights and continuously refined recommendations.

25 The data acquisition module is designed to collect structured, semi-structured, and unstructured data from diverse sources including employee records, performance metrics, training records, financial reports, ESG scoring databases, regulatory frameworks, sustainability disclosures, and third-party industry reports. Incoming
30 data undergoes preprocessing, including cleaning, normalization, and feature extraction, ensuring accuracy, consistency, and harmonization across different data

formats. Unstructured textual data, such as sustainability reports, regulatory guidelines, and employee feedback, are analyzed using natural language processing techniques to extract sentiment, context, and actionable insights, while visual data, including scanned compliance reports, are analyzed through computer vision algorithms. Data fusion techniques combine these heterogeneous data streams into a unified analytical model, forming the foundation for AI-driven analysis and decision-making.

The talent analytics engine evaluates employee skills, performance, and ESG alignment, providing organizations with a detailed understanding of their workforce capabilities and gaps. This module employs supervised and unsupervised learning algorithms to identify high-performing employees, predict workforce requirements, and detect skill deficiencies that may hinder ESG-oriented objectives. In addition, the system provides personalized recommendations for reskilling and upskilling employees, aligning workforce development strategies with organizational sustainability goals. The talent analytics module also incorporates predictive attrition models, identifying factors such as lack of inclusivity, wellness program deficiencies, or inadequate ESG engagement that may lead to employee turnover. By proactively addressing these issues, the system enhances workforce retention and builds a resilient, future-ready organization.

The module further includes bias detection and mitigation algorithms to ensure fair and equitable hiring, evaluation, and promotion processes, in alignment with the social dimension of ESG. Employee engagement, participation in environmental initiatives, and contributions to social responsibility programs are also monitored and incorporated into performance assessments, allowing organizations to reward ESG-aligned behavior and strengthen overall sustainability culture.

The investment analytics engine evaluates financial portfolios through both profitability and ESG compliance lenses, providing organizations with data-driven insights to optimize capital allocation and sustainable investment strategies. The

module integrates quantitative modeling, predictive risk assessment, and scenario simulations to assess portfolio performance under varying market and regulatory conditions, including potential ESG-related risks such as regulatory penalties, reputational damage, or exposure to unsustainable practices. Portfolio ESG scoring combines financial return metrics with environmental, social, and governance performance indicators, generating a composite performance score for each investment or portfolio segment. The module also identifies high-potential sustainable investment opportunities, including renewable energy projects, low-carbon infrastructure initiatives, and ESG-compliant supply chains, providing organizations with actionable insights for long-term sustainable growth. Multi-objective optimization algorithms are employed to balance short-term profitability with long-term ESG resilience, ensuring that financial strategies are both ethical and economically viable. The system allows scenario simulations for various ESG policy changes, market trends, and global sustainability frameworks, enabling organizations to anticipate risks and make proactive investment decisions.

At the core of the invention lies the ESG integration module, which harmonizes workforce and investment analytics under unified ESG principles. The module maintains a centralized ESG knowledge base aligned with globally recognized standards, such as the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), and the Task Force on Climate-related Financial Disclosures (TCFD). Weighted scoring models are applied to evaluate and rank both employee performance and investment outcomes according to ESG criteria. For example, in talent analytics, employee performance assessments incorporate contributions to environmental initiatives, community engagement, and organizational governance practices, while investment analytics consider governance, environmental impact, and social responsibility factors alongside traditional financial metrics. Reinforcement learning is employed to continuously refine ESG scoring models based on real-world organizational outcomes and stakeholder feedback, enabling adaptive decision-making and improved predictive accuracy over time.

The AI analytics core serves as the computational engine of the system, providing advanced analytical capabilities across both workforce and investment domains. Machine learning pipelines, including deep neural networks, gradient boosting, and clustering algorithms, are employed for predictive and prescriptive analysis. Graph neural networks map relationships and interdependencies between employees, teams, ESG initiatives, and investment portfolios, revealing patterns that traditional systems cannot capture. Natural language processing algorithms process unstructured textual data, extracting insights from sustainability reports, employee feedback, regulatory documents, and other narrative sources. Reinforcement learning algorithms iteratively optimize recommendations based on observed outcomes, improving the alignment of workforce development and investment strategies with organizational ESG objectives. This AI core ensures that the system not only analyzes historical data but also generates forward-looking insights to support proactive and strategic decision-making.

The decision-support interface provides a user-friendly platform for executives, human resource managers, sustainability officers, and investment analysts to interact with the system and make informed decisions. Interactive dashboards visualize workforce performance, ESG compliance, and investment outcomes, while scenario-planning tools enable stakeholders to simulate alternative strategies for workforce development or portfolio management. Key performance indicators (KPIs) for ESG alignment, employee productivity, and investment performance are tracked in real time, providing actionable insights at both departmental and organizational levels. Automated reporting capabilities generate ESG-compliant reports that adhere to global sustainability standards, supporting regulatory compliance, stakeholder communication, and internal performance evaluation.

The invention addresses several critical challenges encountered by organizations seeking to implement sustainable practices. By integrating workforce, investment, and ESG analytics within a single system, the invention eliminates silos that hinder

strategic decision-making. Predictive and prescriptive models enable organizations to anticipate workforce requirements, reduce attrition, and optimize employee development programs while ensuring alignment with ESG objectives. In the investment domain, the system provides proactive insights into potential risks and opportunities associated with sustainability, enabling organizations to make responsible and profitable investment decisions. The invention also ensures fairness, equity, and inclusivity in workforce management, mitigating unconscious biases and reinforcing socially responsible practices.

The modular, cloud-native architecture of the system ensures scalability, security, and adaptability across various industries and organizational sizes. The system can be deployed in cloud-based, on-premise, or hybrid environments, allowing integration with existing enterprise systems such as ERP, CRM, HRMS, and financial reporting platforms. Customizable features allow organizations to tailor the system according to their specific ESG, workforce, and investment requirements. The invention is applicable across multiple sectors including finance, healthcare, energy, manufacturing, and technology, providing a versatile tool for organizations aiming to enhance ESG compliance, workforce sustainability, and strategic growth.

While considerable emphasis has been placed herein on the specific features of the preferred embodiment, it will be appreciated that many additional features can be added and that many changes can be made in the preferred embodiment without departing from the principles of the disclosure. These and other changes in the preferred embodiment of the disclosure will be apparent to those skilled in the art from the disclosure herein, whereby it is to be distinctly understood that the foregoing descriptive matter is to be interpreted merely as illustrative of the disclosure and not as a limitation.

We Claim,

1. A system for enhancing workforce performance and investment decision-making through integration of Environmental, Social, and Governance (ESG) principles, comprising:
 - a) a data acquisition module configured to collect structured, semi-structured, and unstructured data from workforce, investment, and ESG sources;
 - b) a talent analytics engine configured to evaluate employee skills, performance, and ESG alignment and to provide predictive and prescriptive recommendations for workforce development;
 - c) an investment analytics engine configured to evaluate financial portfolios in conjunction with ESG metrics, perform risk assessment, and optimize capital allocation;
 - d) an ESG integration module configured to harmonize workforce and investment analytics based on ESG principles; and
 - e) an AI analytics core employing machine learning, natural language processing, and predictive modeling to generate actionable insights and recommendations for enhancing job performance, workforce sustainability, and strategic growth.
2. The system of claim 1, wherein the data acquisition module collects data including employee records, performance metrics, training records, financial reports, ESG ratings, regulatory updates, and sustainability disclosures.
3. The system of claim 1, wherein the talent analytics engine further comprises:
 - a) a skill mapping unit for correlating employee competencies with ESG-relevant skills;
 - b) a predictive performance model for forecasting workforce productivity and attrition; and

- c) a training recommendation module for suggesting reskilling and upskilling pathways aligned with ESG objectives.
- 4. The system of claim 1, wherein the investment analytics engine further comprises:
 - a) a portfolio ESG scoring module for combining financial and ESG performance metrics;
 - b) a sustainability risk assessment module for predicting ESG-related risks; and
 - c) a scenario simulation module for evaluating portfolio resilience under changing market and regulatory conditions.
- 5. The system of claim 1, wherein the ESG integration module applies weighted scoring models to ensure employee evaluations, training recommendations, and investment strategies are aligned with ESG principles.
- 6. The system of claim 1, wherein the AI analytics core employs reinforcement learning to continuously update recommendations and ESG scoring models based on real-world outcomes.
- 7. The system of claim 1, further comprising a decision-support interface providing interactive dashboards, KPI tracking, scenario planning, and automated ESG-compliant reporting for executives, HR managers, and investment analysts.
- 8. The system of claim 1, wherein the system detects and mitigates bias in workforce recruitment, performance evaluation, and training recommendation processes to promote diversity, equity, and inclusion in alignment with ESG principles.
- 9. The system of claim 1, wherein the investment analytics engine identifies sustainable investment opportunities including renewable energy, low-carbon infrastructure, and ESG-compliant supply chains.

10. A method for enhancing workforce performance and investment decision-making, comprising:

- a) collecting workforce, investment, and ESG-related data;
- b) analyzing employee skills, performance, and ESG alignment using AI-based talent analytics;
- c) analyzing financial portfolios and ESG compliance using AI-based investment analytics;
- d) harmonizing workforce and investment analytics under ESG metrics; and
- e) generating predictive and prescriptive recommendations for improving job performance, workforce sustainability, and strategic growth.

Dated this 4 October 2025

A handwritten signature in blue ink, appearing to read 'Amrish Chandra', is written over a faint, rectangular grid pattern.

Dr. Amrish Chandra
Agent of the applicant
IN/PA No: 2959

**TITLE: AI-POWERED ESG TALENT & INVESTMENT ANALYTICS:
ENHANCING JOB PERFORMANCE FOR SUSTAINABLE WORKFORCE
AND STRATEGIC GROWTH**

ABSTRACT

The present invention relates to an AI-powered system and method for integrating Environmental, Social, and Governance (ESG) principles with workforce talent analytics and investment analytics to enhance job performance, build a sustainable workforce, and enable strategic growth. The system collects and harmonizes data from employee records, financial reports, ESG databases, and regulatory frameworks, and processes it through AI-driven modules employing machine learning, predictive modeling, and natural language processing. The talent analytics engine evaluates employee skills and ESG alignment, predicts workforce requirements, and recommends reskilling and upskilling pathways. The investment analytics engine assesses financial portfolios alongside ESG metrics, performs risk analysis, and optimizes capital allocation. An ESG integration module ensures alignment across workforce and investment decisions, while a decision-support interface provides real-time dashboards, scenario planning, and ESG-compliant reporting. The invention enables organizations to make data-driven, ESG-aligned decisions, fostering ethical, skilled workforces and sustainable investment strategies.

पेटेंट कार्यालय
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(57) Abstract :

The present invention relates to an AI-powered system and method for integrating Environmental, Social, and Governance (ESG) principles with workforce talent analytics and investment analytics to enhance job performance, build a sustainable workforce, and enable strategic growth. The system collects and harmonizes data from employee records, financial reports, ESG databases, and regulatory frameworks, and processes it through AI-driven modules employing machine learning, predictive modeling, and natural language processing. The talent analytics engine evaluates employee skills and ESG alignment, predicts workforce requirements, and recommends reskilling and upskilling pathways. The investment analytics engine assesses financial portfolios alongside ESG metrics, performs risk analysis, and optimizes capital allocation. An ESG integration module ensures alignment across workforce and investment decisions, while a decision-support interface provides real-time dashboards, scenario planning, and ESG-compliant reporting. The invention enables organizations to make data-driven, ESG-aligned decisions, fostering ethical, skilled workforces and sustainable investment strategies.

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To whom it may concern,

This letter is to confirm that the book Artificial Intelligence and Digital Transformation: Shaping Business, Technology and Society, by the editors N. Malati, Pratiksha Tiwari and Meenakshi Kaushik is in press.

The proposal was reviewed by our experienced proposal board and, on the basis of its academic merit was accepted for publication. Once the final work was submitted to us, it was also subject to pre-press reviews, which considers the standard and appropriateness of all submitted materials, and was found to meet our standard.

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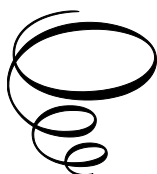
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Table of Contents

Chapter 1	1
Gesture-Controlled Solar-Operated Belt-Type Oil Skimmer Boat for Oil Spill Cleanup Parth Patpatiya, Krishangi Nanda, Samiksha Singh, Tanvi Goyal, Vijaya Laxmi	
Chapter 2	16
Employment and Robots – A Bibliometric Analysis Asmita Sachdeva, Prof. Seema Singh	
Chapter 3	26
Examining the Role of Employee Advocacy and Psychological Contract Fulfilment in Enhancing Employer Attractiveness Astha Kubba, Geetu	
Chapter 4	47
Impact of AI-Enabled Digital Workspaces on Mental Health of Employees Dr Deepa Khatri	
Chapter 5	58
Beyond Followers: AI-Driven Sentiment Analysis for Effective Influencer Selection Dr Meenakshi Kaushik	
Chapter 6	72
Indian Knowledge Systems and Modern Banking: A Study of Workplace Spirituality and Spiritual Fulfilment Dr Akshay Kumar, Isha Gupta	

Chapter 7	95
Government Initiatives and Policies on AI in Indian Education (NEP 2020 Perspective)	
Mr Naman Kamra, Ms Ankita Gulia, Mr Suryansh Bansal	
Chapter 8	106
Artificial Intelligence-Enabled Marketing and Service Quality in the Era of Digital Transformation: A Conceptual Framework for Strategic and Ethical Value Creation	
Ms Nikita Jain, Ms Neha	
Chapter 9	120
E-Governance-Driven Digital Transformation: Improving Service Quality in Technical Higher Education Institutions	
Pawan Kataria, Dr Chetna Sharma Rajput	
Chapter 10	142
Indian Knowledge Systems and Emerging Technologies: Scope for Synergy	
Dr Pooja Gupta	
Chapter 11	151
The Role of Artificial Intelligence in Transforming the Financial Sector	
Ms Juhi Ahuja	
Chapter 12	162
Cross-Platform Optimisation of Randomised Matrix Decompositions for Interpretable Large-Scale Data Analytics	
Anirban Nandy	

Chapter 13	182
AI in the Modern Era: Balancing Ethics and Privacy	
Dr B. Sujatha, Qursheed Begum	
Chapter 14	190
Role of FinTech and Artificial Intelligence in Advancing Financial Inclusion in Rural India	
Dr Puja Kumari, Dr Hemkant Kulshreshtha, Dr Nisha Datt	
Chapter 15	208
Cross-Cultural Training Research: A Bibliometric Analysis 1990–2025	
Chetna Sharma, Seema Rani	
Chapter 16	243
Green Communication in Wireless Body Area Networks	
Dr Sriyanjana Adhikary, Ms Srabasti Mukherjee	
Chapter 17	259
Greener Pixels: Environment-Aware Sustainable Web Design	
Ksh. Krishna B Singha, Mukta Sharma, Arti Bajaj	
Chapter 18	279
Exploring Cultural Challenges in International Business: A Quantitative Case Study of Tata Motors in the UK	
Dr Anand Kumar, Dr Gitanjali Jindal, Dr Komal Jindal	
Chapter 19	300
Artificial Intelligence and Digital Transformation: Shaping the Future of Work, Organisations and Society	
Ms Neha Sabharwal, Ms Neha Solanki	

Chapter 20	312
Institutional Frameworks, FinTech Growth and	
Cybersecurity Risks	
in India's Digital Economy	
Ms Tanya Jolly, Mr Shubham Gaur	

Chapter 4

Impact of AI-Enabled Digital Workspaces on Mental Health of Employees

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ABSTRACT

As digital technologies and artificial intelligence (AI) redefine the modern workplace, their impact on employee mental health has become a critical area of study. This study explores the dual impact of AI and digital workspaces on employee mental health, highlighting both the risks and potential benefits. Increased screen time, constant connectivity, performance monitoring, job insecurity, and blurred boundaries between work and personal life have contributed to rising levels of stress, anxiety, burnout, and emotional fatigue among employees. At the same time, AI-enabled solutions such as mental health chatbots, workload optimization, and predictive analytics offer opportunities for early identification of stress and improved workplace support systems. This study emphasizes the importance of ethical AI implementation, supportive organizational policies such as clear communication and comprehensive training programs, a human-centered approach to digital transformation to ensure psychological well-being and sustainable work practices in the evolving digital era.

KEY WORDS: Artificial Intelligence, employees, stress, burnout, digital workspaces, mental health.

Chapter 5

Beyond Followers: Ai-Driven Sentiment Analysis For Effective Influencer Selection

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Abstract

In the contemporary digital marketing landscape, influencer marketing has emerged as a strategic tool for enhancing brand awareness, consumer engagement, and trust. However, traditional influencer selection methods rely heavily on quantitative metrics such as follower count and engagement volume, which often fail to capture audience perception and emotional response. To address this limitation, the present study proposes an Artificial Intelligence (AI)-driven sentiment analysis framework using MonkeyLearn to evaluate influencers based on audience-generated content.

The study analyzes a sample of 60 influencers from the fashion, lifestyle, and beauty domains across major social media platforms. Audience comments and engagement data are processed using Natural Language Processing (NLP) techniques to generate sentiment scores, which are used to rank influencers. The performance of sentiment-based influencer selection is compared with traditional selection approaches using statistical methods, including correlation, t-tests, and regression analysis.

The findings indicate that sentiment-driven influencer selection significantly enhances engagement quality, strengthens consumer trust, and improves purchase intention. Influencers with higher positive sentiment scores demonstrate stronger audience alignment and authenticity, leading to more effective campaign outcomes. The study contributes to the growing field of AI in marketing by offering a scalable, data-driven framework for influencer evaluation. Additionally, it highlights important ethical considerations, including data privacy, transparency, and responsible use of AI technologies in digital marketing.

Keywords: Artificial Intelligence, Sentiment Analysis, Influencer Marketing, Consumer Engagement, Brand Trust

Chapter 7

Government Initiatives and Policies on AI in Indian Education (NEP 2020 perspective)

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ABSTRACT

The integration of Artificial Intelligence (AI) in education has gained significant attention in India, particularly after the introduction of the National Education Policy (NEP) 2020. Recognizing AI as a critical enabler of educational transformation, NEP 2020 emphasizes the use of digital technologies to enhance access, equity, and quality across all levels of education. This study examines government initiatives and policy measures related to AI in Indian education from the NEP 2020 perspective, based on secondary data collected from policy documents, government reports, and existing academic literature.

The paper analyzes key initiatives such as the National Digital Education Architecture (NDEAR), DIKSHA, SWAYAM, and AI-focused skill development programs, highlighting their role in promoting personalized learning, teacher support, and institutional efficiency. It also identifies major challenges including infrastructure disparities, digital divide, data privacy concerns, and implementation constraints. The study concludes that while NEP 2020 provides a strong policy framework for AI adoption in Indian education, effective execution and regulatory oversight are essential to ensure inclusive and sustainable educational outcomes.

Chapter 8

Artificial Intelligence–Enabled Marketing and Service Quality in the Era of Digital Transformation: A Conceptual Framework for Strategic and Ethical Value Creation

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ABSTRACT

This conceptual paper explores the transformative role of Artificial Intelligence (AI) in marketing within the broader context of digital transformation. As organisations increasingly operate in data-driven and technology-intensive environments, AI has emerged as a critical enabler of strategic marketing innovation. The paper synthesises existing theoretical perspectives and contemporary literature to examine how AI reshapes core marketing functions, including consumer behaviour analysis, predictive marketing, social media and sentiment analytics, conversational AI–driven customer experience, and immersive branding through virtual and augmented reality. Rather than relying on primary empirical data, the study adopts a conceptual approach to integrate diverse streams of research and develop a holistic understanding of AI-driven marketing transformation. The paper further examines ethical challenges such as data privacy, algorithmic bias, transparency, and consumer trust, emphasising the need for responsible AI governance. By proposing a conceptual framework that links AI capabilities, marketing processes, strategic outcomes, and societal implications, the study contributes to theory development and provides actionable insights for marketers and policymakers. The paper is particularly relevant for emerging economies like India, where AI-enabled digital marketing holds significant potential for inclusive growth and entrepreneurial development.

Keywords: Artificial Intelligence, Digital Transformation, Conceptual Framework, AI in Marketing, Ethical AI

Chapter 11

The Role of Artificial Intelligence in Transforming Financial Sector

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ABSTRACT

An evolution in the approach we employ to conduct business today in the finance industry is occurring with advances in Artificial Intelligence particularly in the Fintech Sector. The use of AI has significantly affected the way traditional financial companies conduct business by increasing efficiency, accuracy and security.

With many banks and financial institutions utilizing AI based technologies within their day to day operations including machine learning algorithms, Natural language processing, Predictive analytics etc. The impact that these technological advancements have had on banks and financial institutions ability to make better decisions, streamline their operation process and provide a more customized experience for customers is substantial.

A major impact that AI is going to have on the financial industry is that AI powered systems can swiftly analyze and process an unlimited amount of financial data to help to determine financial strategies, assess risks and detect frauds at a much faster and accurate rate. Therefore, it helps financial organizations to save their operational costs and boosts their operational efficiency.

AI has also changed the way of customer interactions with financial services by creating chatbots and virtual assistants which offer personalized and efficient support. However, this dependence on AI in the financial sector also raises concerns regarding ethics, security, and data privacy.

Therefore, a study is conducted to assess the role of AI in transforming financial services. The objective was to look out for the ways that can help to improve the efficiency in relation to satisfy the customer needs.

Keywords: Artificial Intelligence (AI), Impact, Efficiency, Financial Services, Transformation.

Chapter 18

"Exploring Cultural Challenges in International Business: A Quantitative Case Study of Tata Motors in the UK"

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Abstract

The cultural demanding situations in worldwide business are examined in this article, with precise connection with Tata Motors within the United Kingdom. The impact on and strategies utilized by Tata Motors to address cultural troubles inside the UK marketplace had been assessed thru analysis if you want to enhance consciousness of the corporation's cultural worries. In order to acquire statistics, the research used a quantitative approach via surveying sixty two contributors. The consequences showed that Tata Motors has quite a few troubles inside the UK. Among such demanding situations include language barriers, differences in management ideologies, negotiation techniques, and painting ethics. Tata Motors has carried out several projects to cope with those issues, together with hiring nearby personnel, working with neighborhood organizations, and imparting pass-cultural training. According to this document, Tata Motors stepped forward its role in the UK marketplace through strategically obtaining corporations and efficiently leveraging its name as a global logo.

Keywords: National culture, Cultural distance, International business, cross-cultural integration, international business management, socioeconomic factors.

Chapter 19

Artificial Intelligence and Digital Transformation: Shaping the Future of Work, Organizations, and Society

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Abstract

Artificial Intelligence (AI) has emerged as a core driver of digital transformation, transforming how organizations operate, how work is structured, and how societies evolve. While the role of AI in digital transformation has been widely discussed, comprehensive interdisciplinary research that integrates technological, organizational, and societal perspectives remains limited. This study examines AI-driven digital transformation and its effects on the future of work, organizational change, and societal outcomes using an integrative theoretical and empirical approach. Findings reveal that AI adoption enhances organizational agility and performance while raising workforce challenges related to skills, job design, and social equity. The study proposes a multi-level framework linking AI capabilities, organizational practices, and societal implications. Practical implications for managers and policymakers are discussed along with future research directions.

Keywords: Artificial Intelligence, Digital Transformation, Future of Work, Organizational Change, Societal Impact, AI Adoption