

The Adoption and Effect of Artificial Intelligence on Human Resources Management

EMERALD STUDIES IN FINANCE, INSURANCE, AND RISK MANAGEMENT

Series editors: Ercan Özen and Simon Grima

Books in this series collect quantitative and qualitative studies in areas relating to finance, insurance, and risk management. Subjects of interest may include banking, accounting, auditing, compliance, sustainability, behaviour, management, and business economics.

In the disruption of political upheaval, new technologies, climate change, and new regulations, it is more important than ever to understand risk in the financial industry. Providing high quality academic research, this book series provides a platform for authors to explore, analyse and discuss current and new financial models and theories, and engage with innovative research on an international scale.

Previously published:

Uncertainty and Challenges in Contemporary Economic Behaviour
Ercan Özen and Simon Grima

New Challenges for Future Sustainability and Wellbeing
Ercan Özen, Simon Grima and Rebecca Dalli Gonzi

Insurance and Risk Management for Disruptions in Social, Economic and Environmental Systems: Decision and Control Allocations within New Domains of Risk
Simon Grima, Ercan Özen and Rebecca Dalli Gonzi

Public Sector Leadership in Assessing and Addressing Risk
Peter C. Young, Simon Grima, and Rebecca Dalli Gonzi

Big Data Analytics in the Insurance Market
Kiran Sood, B. Balamurugan, Simon Grima, and Pierpaolo Marano

The Adoption and Effect of Artificial Intelligence on Human Resources Management, Part B

EDITED BY

PALLAVI TYAGI

Amity University, India

NAVEEN CHILAMKURTI

La Trobe University, Australia

SIMON GRIMA

University of Malta, Malta

KIRAN SOOD

Chitkara Business School, Chitkara University, Punjab, India

AND

BALAMURUGAN BALUSAMY

Shiv Nadar University, India



United Kingdom – North America – Japan – India – Malaysia – China

Emerald Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2023

Editorial matter and selection © 2023 Pallavi Tyagi, Naveen Chilamkurti, Simon Grima,
Kiran Sood and Balamurugan Balusamy
Individual chapters © 2023 The authors
Published under exclusive licence by Emerald Publishing Limited.

Reprints and permissions service

Contact: permissions@emeraldinsight.com

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN: 978-1-80455-663-4 (Print)

ISBN: 978-1-80455-662-7 (Online)

ISBN: 978-1-80455-664-1 (Epub)



ISOQAR certified
Management System,
awarded to Emerald
for adherence to
Environmental
standard
ISO 14001:2004.

Certificate Number 1985
ISO 14001



INVESTOR IN PEOPLE

Contents

List of Figures and Tables	vii
About the Editors	ix
About the Contributors	xi
Foreword	xxi
Preface	xxiii
Chapter 1 Artificial Intelligence for Recruitment and Selection <i>Aashima Gupta and Mridula Mishra</i>	 1
Chapter 2 Acceptance of Artificial Intelligence in Human Resource Practices by Employees <i>Meet Bhatt and Priyanka Shah</i>	 13
Chapter 3 Technology and the Change in the Nature of Work. The Impact on HRM Practices: The Protean Career and Boundaryless Career <i>Fatima Shaikh, Gul Afshan and Kiran Sood</i>	 31
Chapter 4 Challenges of Adopting AI Technology With Special Reference to HR Practices and Employees' Acceptability and Accountability <i>Dhanashree Tharkude</i>	 45
Chapter 5 Adoption of Artificial Intelligence in HR Practices: An Empirical Analysis <i>Ansumalini Panda, Srinivas Subbarao Pasumarti and Suvarna Hiremath</i>	 65

Chapter 6 An Analysis of the Challenges to Human Resource in Implementing Artificial Intelligence <i>Laxmi Pandit Vishwakarma and Rajesh Kumar Singh</i>	81
Chapter 7 Challenges of Adopting Artificial Technology in Human Resource Management Practices <i>Aradhana Sharma, Dhiraj Sharma and Rajni Bansal</i>	111
Chapter 8 Artificial Intelligence and Robotic Automation Hit by the Pandemic: Reality or Myth <i>Kiran Gehani Hasija, Karishma Desai and Sopnamayee Acharya</i>	127
Chapter 9 Deciphering the Role of Artificial Intelligence in Health Care, Learning and Development <i>Ryan Varghese, Abha Deshpande, Gargi Digholkar and Dileep Kumar</i>	149
Chapter 10 Reskilling Workforce for the Artificial Intelligence Age: Challenges and the Way Forward <i>Indira Priyadarsani Pradhan and Parul Saxena</i>	181
Chapter 11 HRM Digitalisation: Exploring Success and Outcomes <i>Gurinder Singh, Pooja Tiwari and Vikas Garg</i>	199
Chapter 12 Role of Artificial Intelligence in Re-inventing Human Resource Management <i>Prateek Kalia and Geeta Mishra</i>	221
Chapter 13 A Literature Review on HR Analytics: Trends and Future Challenges <i>Shraddha Awasthi, Devesh Bathla and Sheetal Singh</i>	235
Index	251

List of Figures and Tables

Figures

Fig. 2.1.	Model Derived From the Integration of TAM, TRI, and TOE Model (Only Technology Aspect is Utilised)	21
Fig. 3.1.	Theoretical Framework	39
Fig. 4.1.	Key Functions of HR	48
Fig. 4.2.	Components of Performance Appraisal	51
Fig. 5.1.	Companies Using AI	67
Fig. 5.2.	How Companies Around the World Are Using AI	69
Fig. 5.3.	Reasons for Adopting AI	71
Fig. 6.1.	Flow Chart of Research Methodology	87
Fig. 6.2.	Year-wise Publication of the Documents (<i>n</i> = 47)	89
Fig. 6.3.	Document Type (<i>n</i> = 47)	90
Fig. 6.4.	Geographical Distribution (<i>n</i> = 47)	90
Fig. 6.5.	Challenges of AI Adoption in HRM	91
Fig. 8.1.	Methodology	135
Fig. 8.2.	Spending on Automation and AI Business Operations Worldwide 2016–2023, by Segment	136
Fig. 8.3.	AI Market Size/Revenue Comparisons 2018–2027	137
Fig. 8.4.	AI Market Spending Worldwide 2020, by Segment	139
Fig. 8.5.	Average Change in AI Investment in Global Companies Due to Covid-19 2020, by Industry	140
Fig. 8.6.	Global Business and HR Leaders on AI Impact to Job Numbers in Their Organisation 2020	141
Fig. 8.7.	AI Timeline: When Will Organisations and Industries be Transformed 2020	142
Fig. 9.1.	The Utility of AI in Various Facets of Learning and Development	156
Fig. 10.1.	Future Evolution of AI	184
Fig. 10.2.	Challenges in Bridging the Skill Gap	190
Fig. 10.3.	Skills Necessary for Upskilling and Reskilling	194
Fig. 12.1.	Application of AI in Training and Development	229
Fig. 12.2.	Application of AI in PMS	230
Fig. 12.3.	Augmenting AI for Employee Engagement	231
Fig. 13.1.	Conceptual Framework	239
Fig. 13.2.	Periodical Publications	241

viii List of Figures and Tables

Fig. 13.3.	Journal-wise Publications	243
Fig. 13.4.	Word Cloud for Titles Used in HR Analytics Publications	245
Fig. 13.5.	Word Cloud for Keywords Used in HR Analytics Publications	247

Tables

Table 2.1.	KMO and Bartlett's Test	21
Table 2.2.	Rotated Component Matrix	23
Table 2.3.	ANOVA for Change Acceptance Factors	24
Table 4.1.	A Data Review	58
Table 5.1.	Descriptive Statistics, Reliability Coefficients, and Correlations Among the Constructs	73
Table 5.2.	KMO and Bartlett's Test	74
Table 5.3.	Communalities	75
Table 5.4.	Factor Loading Under Varimax Rotation	76
Table 6.1.	Challenges of AI Implementation in HRM	91
Table 8.1.	Spending on Automation and AI Business Operations Worldwide 2016–2023, by Segment (Billion USD)	136
Table 8.2.	AI Market Size/Revenue Comparisons 2018–2027 (Billion USD)	138
Table 8.3.	AI Market Spending Worldwide 2020, by Segment (Billion USD)	138
Table 8.4.	Average Change in AI Investment in Global Companies Due to Covid-19 2020, by Industry	139
Table 8.5.	Global Business and HR Leaders on AI Impact to Job Numbers in Their Organisation 2020	140
Table 8.6.	AI Timeline: When Will Organisations and Industries Be Transformed 2020	141
Table 9.1.	Different AI-based Technologies	155
Table 10.1.	Traditional Business Intelligence Versus Artificial Intelligence	185
Table 10.2.	Prominent AI Technologies and Their Usage	186
Table 12.1.	Application of AI	224
Table 12.2.	AI-empowered Tools for Talent Acquisition	228
Table 13.1.	The Number of Articles Appeared After Initial Search	239
Table 13.2.	Results After Refining Search	240
Table 13.3.	Journal-wise Publications	245
Table 13.4.	Trends in HR Analytics	246

About the Editors

Pallavi Tyagi is an Associate Professor at Amity College of Commerce and Finance, Amity University Uttar Pradesh, Noida, India. She received her MBA degree from Banasthali University, Rajasthan, India. She earned her Doctor of Philosophy degree in Human Resource Management with a concentration on employee empowerment and organisation performance in 2018. She has a total experience of 12 years. She has published various case studies and research papers in reputed journals and presented papers in various national and international conferences. She serves as an Editor of the *Global Journal of Management and Sustainability* (ISSN 2583-4460). Her area of interests includes diversity, equity and inclusion (DEI), employee empowerment, and social entrepreneurship. She has edited various books with international publishers including Emerald and Rivers Publishers. Various patents and copyrights are also to her credit.

Naveen Chilamkurti is a Professor and Head of the Cybersecurity discipline at La Trobe University, Melbourne, Australia. He holds a PhD and Master of Computer Science from La Trobe University. He is a Senior Member of *IEEE Society* and is active in the *IEEE Communications and Computer Society Technical Committees*. He has organised and chaired many international conferences on wireless computing, pervasive computing, and the next generation of wireless networks. He has authored over 75 scientific publications, book chapters, and journals. He serves as an Associate Editor for six international journals and has served as a Guest Editor for a range of international journals, including Emerald's *International Journal of Intelligent Unmanned Systems*. His extensive research interests lie primarily in the areas of wireless communications, multimedia, pervasive computing, 4G communications, wireless sensor networks, green networking, WiMAX, and RFID technologies.

Prof. Simon Grima is the Deputy Dean of the Faculty of Economics, Management and Accountancy, Associate Professor, and the Head of the Department of Insurance and Risk Management which he set up in 2015 and started and coordinates the MA and MSc Insurance and Risk Management degrees together with the BCom in Insurance at the University of Malta. He is also a Professor at the University of Latvia, Faculty of Business, Management and Economics, and a Visiting Professor at UNICATT Milan. He served as the President of the Malta Association of Risk Management (MARM) and President of the Malta Association of Compliance Officers (MACO) between 2013 and 2015, and between 2016

and 2018, respectively. Moreover, he is the Chairman of the Scientific Education Committee of the Public Risk Management Organization (PRIMO) and the Federation of European Risk Managers (FERMA). His research focus is on governance, regulations, and internal controls, and has over 30 years of experience varied between financial services, academia, and public entities. He has acted as Co-chair and is a Member of the Scientific Program Committee on some international conferences, and is a Chief Editor, Editor, and Review Editor of some journals and book series. He has been awarded Outstanding Reviewer for *Journal of Financial Regulation and Compliance* in 2017 and Emerald Literati Awards in 2022. Moreover, he acts as an Independent Director for Financial Services Firms, sits on Risk, Compliance, Procurement, Investment and Audit Committees, and carries out duties as a Compliance Officer, Internal Auditor, and Risk Manager.

Prof. Kiran Sood is a Professor at Chitkara Business School, Chitkara University, Punjab, India. She received her Undergraduate and PG degrees in Commerce from Panjab University, respectively, in 2002 and 2004. She earned her Master of Philosophy degree in 2008 and Doctor of Philosophy in Commerce with a concentration on Product Portfolio Performance of General Insurance Companies in 2017 from Panjabi University, Patiala, India. Before joining Chitkara University in July 2019, she had served four organisations with a total experience of 19 years. She has published various articles in various journals and presented papers at various international conferences. She serves as an Editor of the refereed journal, particularly the *IJBST International Journal of BioSciences and Technology* and *International Journal of Research Culture Society*, and *The Journal of Corporate Governance, Insurance, and Risk management (JCGIRM)* in 2021. Her research mainly focuses on regulations, marketing, and finance in insurance, insurance management, economics, and management of innovation in insurance. She has edited more than 10 books with various international publishers, such as Emerald, CRC, Taylors & Francis, AAP, Wiley scrivener, IET, Rivers Publishers, and IEEE.

Balamurugan Balusamy has served up to the position of Associate Professor in his stint of 14 years of experience with VIT University, Vellore, TN, India. He had completed his Bachelors, Masters, and PhD degrees from top premier institutions. His passion is teaching and adapting different design thinking principles while delivering his lectures. He has completed around 30 books on various technologies and visited 15 plus countries for his technical discourse. He has several top-notch conferences in his resume and has been published in over 150 quality journals, conference papers, and book chapters combined. He serves on the Advisory Committee for several start-ups and forums and does consultancy work for the industry on industrial IoT. He has given over 175 talks in various events and symposiums. He is currently working as an Associate Dean – Students at Shiv Nadar University, India.

About the Contributors

Sopnamayee Acharya is currently working as an Assistant Professor in QT & OM. She has more than 13 years of teaching experience at postgraduate and undergraduate levels that include coordination and handling of various academic and administrative responsibilities. She has done her PhD on study of Mathematical Network Optimisation Models using Stochastic Demands from School of Mathematics, Vikram University, and Ujjain. She has received Best Research Paper award in Management in 7th Asian Business Research Conference organised by WBI in Dhaka, Bangladesh. She has more than 45 publications to her credit both in management and mathematics.

Gul Afshan is an Assistant Professor at Sukkur IBA University, in Pakistan. She has earned her PhD from IAE-Aix Marseille Graduate School of Management, France. She is an HEC approved Supervisor. Her research interest includes leader–member exchange, supervisory justice, and supervisor support, conflict at the workplace, CSR, and knowledge management. Currently she has published about 19 research papers in international journals.

Shraddha Awasthi is an Experienced Academician, designed as Associate Professor with a demonstrated history of working in the higher education industry. Skilled in curriculum development, faculty development, e-learning, teaching, and education. Strong education professional with a MBA focused on Human Resources Management/Personnel Administration, General from UP Technical University, and a PhD from Amity University. Her areas of expertise are organisational behaviour, human resource management, managerial counselling, and general management. She completed various certification course in HR and management from reputed institutions such as leadership in uncertain times from Flinders University, Australia, People Analytics certificate course from University of Pennsylvania, and Advanced Concepts for Developing MOOCs course from University of Delhi.

Rajni Bansal is an Academician of a great standing, worked as a Faculty and Academic Administrator for over 14 years in her previous positions. She is also Cost and Management Accountant and a Certified Member of Institute of Cost Accountants of India. Her research interests are in the field of cost accounting, finance, and taxation. She has earned various positions during her journey such as Head of the Department of Management, Editor PIMT Journal of Research (UGC Care Listed Journal), acted as Superintendent, Assistant to Controller in

Evaluation of PTU Exams, and many others. She has attended various national and international conferences. She has also published two books along with more than 20 papers in various national and international journals. Her name has also been included in the editorial of various UGC Care Listed Journals.

Devesh Bathla is a Professor of Business Analytics and Data Science at Chitkara University, Punjab, India. He is an Industry Practitioner with vast experience in field of data analytics and contributes largely to corporate consulting, besides frequently conducting corporate training modules internationally. He holds a PhD degree in Management, an MBA, and is an Engineering graduate. His areas of expertise are business analytics, marketing analytics, health-care analytics, HR analytics, and other data science related subjects. He has versatile teaching, corporate training, and industry experience. His academic contributions include 10 patents and eight more in progress that have already been filed by him and he encourages his mentees to contribute in the domain of invention.

Meet Bhatt is a PhD Candidate in management at Gujarat Technological University (GTU) and works as an Assistant Professor at GTU-affiliated Chimanbhai Patel Institute of Management and Research. She holds a bachelor of Engineering in Information Technology and a master's degree in Business Administration with a specialisation in human resource management. She has five years of corporate experience and has been in academics for the last 2.5 years. She has published a few research papers and case studies in *UGC Care Journal* and conference proceedings. Her area of interest are multidisciplinary topics of information technology and HR.

Karishma Desai is an Assistant Professor (General Management) at Kirit P. Mehta School of Law, NMIMS (Deemed-to-be-University) and has 10+ years of teaching experience. She has obtained PhD (Commerce) from the University of Mumbai on the topic of *Employee's attitude and satisfaction towards their Job in the Private Corporate Sector in Mumbai*. She is a Professor of Management, Marketing, OB-HRM, Environment Management and CSR, and Research Methodology. She has published 10 research papers in UGC peer-reviewed journals, Scopus indexed, and ABDC journals, and has also co-authored two text books and guided more than 60 students to publish their research papers in UGC peer-reviewed journals.

Abha Deshpande is a Sophomore student at the Poona College of Pharmacy, Bharati Vidyapeeth Deemed University. Her work thus far has explored AI in healthcare sciences, drug delivery systems in cancer, and drug targets in Alzheimer's disease. Her research interests include metabolomics, nanomedicine, and genomics. Her keen interest in academia drives her to pursue a career in pharmaceutical sciences.

Gargi Digholkar is a Sophomore student at the Poona College of Pharmacy, Bharati Vidyapeeth University. Her research interests include toxicology, personalised medicine, and bioinformatics. She has worked on a spectrum of topics including artificial intelligence, drug repurposing, and drug delivery in Alzheimer's disease, and is eagerly interested in pursuing a career in the pharmaceutical sector.

Vikas Garg is the Assistant Director Executive Programs Management Domain at Amity University Uttar Pradesh, India. He has an experience of more than two decades handling many Ph.D. scholars under his esteemed guidance. He has numerous research publications with no of Scopus and ABDC indexed international and national journals and also acting as the Editor of few renowned SCOPUS journals. He has always been the lead organizer in conducting various International Conferences, Workshops, Case study Competitions and has been conferred National & International Awards for Being the Best Academician, Researcher & Employee. His area of interest includes Fintech, Financial Modelling, Sustainable Banking services and International Business with multidisciplinary approach.

Aashima Gupta is a Research Scholar at Mittal School of Business, Lovely Professional University, Phagwara, Punjab, India. She has completed her masters from Punjab University, Chandigarh and has qualified UGC NET/JRF examination. She is a Keen Researcher of artificial intelligence tools and their role in human resource functions.

Kiran Gehani Hasija, PhD, UGC NET Awardee and MBA Gold Medallist. She is primarily interested in research concerning leadership styles, marketing management, and related HR issues. She is fond of Content Writing and believes in Self-learning. Her research articles have been published in various Scopus, C-category (ABDC) journals, and international e-books. She recently won 'Best Paper Presenter Award' and 'Reviewers Choice Best Paper Award' in an International Conference sponsored by Taylor & Francis Group and SMART Society USA. Currently, serving NMIMS Indore at School of Law being Faculty of Management with academic teaching experience of 8+ years.

Suvarna Hiremath, holds Bachelor of Engineering, MBA in Marketing, and pursuing PhD, is an Astute Professional with over 10 years of experience in managing Business Development Functions, Sales and Marketing in FMCG Industry, and over six years of teaching experience at postgraduate level. Published research papers and case study in national/international journals and presented research papers in national/international conferences in the areas of entrepreneurship, retailing, digitalisation, and marketing strategies. A Keen Researcher with interest in statistical tools and techniques, entrepreneurship, innovative teaching and learning, and rural marketing.

Prateek Kalia is a Postdoctoral Researcher at the Department of Corporate Economy, Faculty of Economics and Administration, Masaryk University, Brno, Czech Republic. Earlier, he has worked as Director and Professor at a leading university in North India. He is a specialist in the field of management with a keen interest in digital analytics, electronic commerce, e-service quality, and consumer behaviour. He is a Prominent Author and Reviewer for various A-category journals. He has presented his work at several national and international conferences and received awards and accolades. He holds copyright for a novel concept in mobile commerce.

Dileep Kumar is an Assistant Professor at the Department of Pharmaceutical Chemistry, Poona College of Pharmacy. He is a pioneer in his field with his forte in the treatment and novel drug delivery in Cancer and Alzheimer's disease, especially adamantyl analogues as GluN2B selective NMDA receptor agonists. He is also an Awardee of the Junior Research fellowship by National Medicinal Plant Board (NMPB) New Delhi, Senior Research Fellowship from University Grants Commission, Teaching Assistantship, and institute Postdoctoral Fellowship from IIT (BHU), Varanasi. He is the Guest Editor of prestigious journals like *Current Topics in Medicinal Chemistry*, *Current Drug Target*, and *Combinatorial Chemistry*. He has many patents to his credit and edited books of Springer nature and Bentham.

Geeta Mishra is an Associate Professor in the area of human resource management at Amity University, Noida, Uttar Pradesh, India. She is a Trainer in the area of soft skills development for professionals from the banking, corporate sector, and the BSF commandants. She has published case studies with Ivey League, IMD laussane, Harvard and published papers in journals of national and international repute. She has rich in teaching and research experience of more than 15 years. She did her PhD from Jamia Millia Islamia University and MCom from Delhi University, India. She was also deputed to RMIT Australia for taking a course on Human Resource Management.

Mridula Mishra is currently a Professor and Head of the Department of HRM at MSOB (MHRD NIRF India Rank 52; ACBSP USA, Accredited), Lovely Professional University, Phagwara, Punjab, India. She has done her PhD in Psychology from Banaras Hindu University (BHU), Varanasi. Her PhD was on Rorschach Inkblot Test and SIS. She is the first scholar in the world who did PhD on SIS. She has received three times SIS Best Paper Award in 1992, 1996, and 2000 and two times SIS Best Research Award in 2006 and 2008 from SIS Centre, Anchorage, AK, USA. She has more than 23 years of experience in academics, research, and hospitals. In journey of her academic and professional life more than 10 MPhil and 13 PhD students guided by her. Her interest area of teaching and research is clinical psychology and organisational behaviour. She has 65 research publications with citation 486, H-Index 12 and i10 Index 16 in various Emeralds and Scopus indexed national and international journals. She has approximately more than 35 FDP/Workshop/Seminar attended, conducted, and organised on her

expertise areas in India and abroad. She has five professional memberships from various national and international organisations.

Ansumalini Panda holds PhD (Management, 2019) from NIT Rourkela, Odisha. She has qualified UGC NET in the year 2011. She has served as full-time PhD scholar as teaching and research assistant at NIT Rourkela. She is having more than 10 years of teaching experience and five-year research experience in the field of management from eminent institutes. Her teaching interests are in the area of human resource management and organisation behaviour.

Srinivas Subbarao Pasumarti presently working as Dean and Director in Dr. Vishwanth Karad MIT World Peace University, Pune, India. He has over 27 years of experience in teaching, research, and academic administration. He is an alumnus of IIM Ahmedabad. He did his PhD in Entrepreneurship from Nagpur University and Postdoctoral from Berhampur University on *FDI in Indian Tourism Sector*. He comes from an interdisciplinary background having studied social science, humanities, and management. He received his third research degree, that is, PhD in law on the topic *CSR and Socio economic Development* from National Law University, Odisha.

Indira Priyadarsani Pradhan has seven years of professional and academic experience, as well as two years of experience working for an Indian corporate firm. Assistant Professor at Galgotias University's School of Business and a Research Scholar at Sharda University in Greater Noida are among her professional accomplishments. Her several research papers have been presented at national and international conferences on issues such as artificial intelligence and human resource functions, reskilling the workforce, and entrepreneurship. Her papers have been published in SCOPUS and in UGC Care Journals. She has one patent that has been published. She has organised a number of FDPs, HR conclaves, and Guest Lectures on a variety of human resource-related subjects.

Parul Saxena has 19 years of experience as a professional and academician, with eight years working for US/Indian IT firms and over 10 years in academia. Currently, she is an Associate Professor, School of Business Studies, and Vice-chairperson Career Counselling & Development Centre, Sharda University Greater Noida. She has presented research papers at national and international conferences on Work-Life Balance, Gender Diversity, Employee Engagement, and other HR topics. She papers are in SCOPUS, Inderscience, and PROQUEST. She has three published patents and multiple copyrights. She has previously served on the academic council and on the organising committees for national and international conferences. She has organised MDPs on soft skills, emotional intelligence, and case study approaches for national and international clients. She is also a PPA certified assessor for Thomson International.

Priyanka Shah is presently working as an Associate Professor at Chimanbhai Patel Institute of Management and Research which is affiliated to Gujarat

Technological University. She has done her MBA in Marketing from Gujarat University and has completed her doctorate in the field of advertising. Having a rich corporate as well as academic experience of more than 14 years, she has authored many research papers in journals of repute. Her areas of interest include advertising, branding as well as marketing analytics.

Fatima Shaikh is a PhD scholar at Sukkur IBA University Sukkur, Pakistan. She did her MBA specialisation in human resource management from the SZABIST Larkana campus in 2013. She is a Corporate Gold Medalist in the subject of performance management. Her research interest includes organisational learning and knowledge management, psychological contract, change management, human resource development, and green human resource management practices. She is having three publications in Higher Education Commission recognised journals of Pakistan.

Aradhana Sharma, Assistant Professor, Gobindgarh Public College, Alour, Khanna, India, has 11 years of experience in teaching undergraduate classes. Presently, she is working in the Department of Commerce and Management, Gobindgarh Public College, Alour, Punjab, India. Her main area of interest is finance, accountancy and management studies, marketing management, and organisation behaviour. She has attended many conferences and presented papers in many national seminars. She also has published many national level research papers. She also worked as Central Superintendent in Punjab University Exams.

Dhiraj Sharma, PhD, is currently working in the Department of School of Management Studies at Punjabi University, Patiala. He holds three postgraduate degrees in the area of Finance, Commerce and Business Administration, respectively, and one postgraduate diploma in Computer Applications. He is UGC NET (University Grants Commission-National Eligibility Test) qualified in the area of Management. A doctorate in the area of Banking and Technology, he has successfully supervised 15 PhDs and currently five candidates are pursuing their doctorate under his supervision. His Major Research Project on Internet Banking in North India was approved and financed by UGC of India. He has 14 books and more than 50 published articles/papers to his credit. Many of his books are serving as text and reference books for many graduate and postgraduate courses in colleges and universities. He has independently developed many books for several institutions notably among them are: All India Management Association (AIMA), New Delhi; Indian Institute of Materials Management (IIMM), Mumbai; Bangalore University, Bengaluru; Punjab University, Chandigarh.

Gurinder Singh, Group Vice Chancellor, Amity Universities, Director General, Amity Group of Institutions and Vice Chairman, Global Foundation for Learning Excellence, has an extensive experience of more than 25 years in Institutional Building, Teaching, Consultancy, Research & Industry. He holds the distinction of being the youngest Founder Pro Vice Chancellor of Amity University for two terms, the Founder Director General of Amity International Business School and

the Founder CEO of Association of International Business School, London. He has been instrumental in establishing various Amity campuses abroad including at London, USA, Singapore, Mauritius, and other parts of the world. To understand the dynamics of industry, he went on a sabbatical to industry for 1½ years and spearheaded the indigenous and international strategic operations of a renowned industrial group with a business strength of Rs 20,000 crore in the capacity of Chief Executive Officer. He has spoken at various international forums which includes prestigious Million Dollar Round Table Conference, at Harvard Business School, Thunderbird Business School, NYU, University of Leeds, Loughbrough Business School, Coventry Business School, Rennes Business School, Essex University, University of Berkeley, California State University, NUS, MIT, UMAS Lowell, Brunel, Northampton, RMIT, Swinburne, Eduniversal Conference, Addis Ababa, QS Apple Conference, Teeside, Northumbria, Middlesex, Birmingham, Gannon, Deakin, Canberra, Cincinnati, Curtin, Queensland, Queens Mary, Babson, NTU, NTHU Taiwan, and many more. He has received more than 25 International and National awards and has graced a host of talk shows on various TV channels. He is a mesmerising orator and has the rare ability of touching the human soul. He is internationally recognised as a known Professor in the area of Management and is known in the field of academics as an Institution Builder, a Writer, Professor, Distinguished Academician, a Top Class Trainer, International Business Expert, and the Champion of the Hearts of Students.

Rajesh Kumar Singh is a Professor at Management Development Institute (MDI), Gurgaon, India. Currently, he is serving as an Associate Editor to *International Journal of Consumer Studies* and *International Journal of Global Business and Competitiveness*. He is also in the Editorial Board of *Journal of Supply Chain Management Systems*, *Journal of Asia Business Studies*, and *Operations Management Research and Vision*. He has also worked as Guest Editor for special issues of many reputed journals such as resources, conservation and recycling, sustainable, production and consumption, competitiveness review, sustainability, etc. He has published around 200 research papers in reputed international journals and conferences.

Sheetal Singh is an Assistant Prof. (Research) in Lal Bahadur Shastri Institute of Management (LBSIM) Delhi, India. He has completed engineering (B.Tech – Biotechnology) graduates followed by management education (MBA) as post-graduate. Completed PhD in management in the area of competency development mechanism. Also has done specialised short-term courses from IIT Roorkee and IIT Kharagpur in the area of Human Resource Management. He has conducted extensive soft skill training sessions to management graduates and conducted several FDP as a resource person and organiser also. He has more than a decade of work experience in Teaching, Training, Research, and Administration. His interest areas are higher education in India, organisation behaviour, and human resource management with specific research topics of competency development, personality, training, and development.

Kiran Sood is a Professor in (Chitkara Business School) Chitkara University, India. She has received her undergraduate and postgraduate degrees in Commerce from Panjab University, respectively, in the years 2002 and 2004. She earned her Master of Philosophy degree in 2008 and Doctor of Philosophy in Commerce with a concentration on Product Portfolio Performance of General Insurance companies in India in 2017 from Panjabi University, Patiala. Before joining Chitkara University in July 2019, she has served four organisations with a total experience of 16 years. Her research interest includes insurance, BFSI, big data, and blockchain.

Dhanashree Tharkude obtained Doctoral degree in the domain of Human Resource Management, carrying an enriched experience of more than two decades in academics as well as industries. Her research work is recognised at several levels and she has published a patent too for her research. Currently she is associated with MIT World Peace University Faculty of Management (PG), with capacity of is working as Associate Head School at MTWPU School of Management (PG) and Faculty for HR Discipline. She is recognised PhD guide at Dr. Vishwanath Karad MIT World Peace University (MIT-WPU), India. She teaches subjects such as organisational behaviour, human resource management, talent management, and organisational development.

Pooja Tiwari is presently working as Associate Professor in ABES Business School and has over 15 years of experience in teaching and research. She did her PhD in HR from Gautam Buddha University, Greater Noida. She has published and presented papers in national and international Conferences in IIMS, IITs, IEEE Conferences, etc., and takes an active part in seminars, conferences, and organizing workshops, FDPs, MDPs, etc. Her area of interest is human resource management, human resource diversity, etc. She is an Active Member of various professional bodies and also a Member of the Editorial Board of many international journals. She is a sincere and committed academician and has authored various research papers in Scopus, SCI and WOS indexed Journals and copyrights on her name. Her core strength lies in research, training, and developing business and academic leaders. She is a good team leader and always performs various tasks with creativity.

Ryan Varghese is a senior-year student and researcher affiliated with the Department of Pharmaceutical Chemistry, Poona College of Pharmacy, India. His work spans a spectrum of topics from artificial intelligence to cancer theranostics and drug delivery in Alzheimer's disease. He has curated several articles on the lacunae in the Government public policies while providing solutions for the same. His recent works include the proposal of drug repurposing and affordable hospitalisation to mitigate the risk stemming from COVID-19 in India.

Laxmi Pandit Vishwakarma is a Research Scholar in Operations Management at Management Development Institute, Gurgaon, India. Her research interest includes Industry 4.0 technologies and supply chain management. She was

recently awarded the “Best Paper Award” in the supply chain management track of the Second International Conference on Changing Business Paradigm (ICCBP’22). In addition, her works have been presented at several national and international conferences. She holds a Master of Business Administration in the dual specialization of Operations and Finance and a Bachelor’s Degree of Engineering in Electronics and Telecommunication.

This page intentionally left blank

Foreword



The arrival of artificial intelligence (AI) in business is expected to have a profound impact on human resources management (HRM). This transformation will include how various organisations manage and approach the HR function (HR management) and HR practiced.

Since the advent of AI implies that machines will compete with humans, human and organisational transformation is at the core of the change. Strategic human resource management (SHRM) focuses on organisational performance, and, in the new cognitive era, the practice of SHRM will undergo major changes.

This edited book provides the readers with a detailed overview of the emerging research field of AI in HRM. By broadly mapping AI fields relevant for HR, it not only considers the more well-known areas of machine learning and natural language processing but also the lesser-known occupations such as affective computing and robotic process automation.

Expert contributors analyse the machine learning applications in human resources, including machine learning on text data, audio and video data, social media data, and recruiting and staffing. They also explore various innovative topics such as knowledge representation, reasoning, and evolutionary computing. Many chapters discuss AI's explainability, fairness, accountability, and legitimacy in HR, which bring normative issues to the fore. Approaches to researching AI in HR and to employing AI in HR research are also tackled. In addition, the edited book also offers an insight into the existing research on AI in human resources, introduces core issues, and considers implications for future research.

xxii Foreword

The book is critical reading for practitioners, scholars, and students of HRM, knowledge management, organisational innovation, computer science, and information systems.

Dr Harsh Sadawarti
Vice Chancellor
CT University, Ludhiana
India

Preface

Technology is best when it brings people together

(Matt Mullenweg, Social Media Entrepreneur)

The above stated quote helps the editors to simply put across the objective behind planning this book. Artificial intelligence (AI) is helping organisations to comprehensively align and manage human resources (HR). AI can have huge benefits for the HR domain. Whether it's saving time through data-driven HR decisions, boosting employee morale through automation and computing, or improving organisation outcome through digitalised HR practices in different sectors of global economy. *The Adoption and Effect of Artificial Intelligence on Human Resources Management* illustrates a blended approach towards different functions of human resource management (HRM) and AI. This book helps the reader in understanding the basic functions of HRM with the ease of AI and automation.

This innovative book offers a decent introduction to the use of AI in HRM and broadly maps the AI technology with different HR functions. It not only covers the basic AI–HR blended theory but also follows a research-based approach towards this emerging area of study. Multiple authors have contributed to the project in the form of chapters. Expert authors analyse the more well-known areas of digitalisation, machine learning, and automation of HR, but also contributed in the lesser talked about fields, such as HR optimisation, robotic automation, and recruitment analytics.

Contributors also explore a range of innovative topics such reinventing learning and development processes, employee engagement using the internet of things and people analytics. The double volumed book discusses the scope, fairness, importance, responsibility, and legitimacy of AI in HR. This book will prove to be a critical read for research scholars, HR practitioners, and UG and PG students of HRM, organisation development, sustainable knowledge management, computer science, information systems, and design thinking and innovation. It may also be helpful for policy-makers to redesign and reinvent policies related to different HR functions.

The Editors

This page intentionally left blank

Chapter 1

Artificial Intelligence for Recruitment and Selection

Aashima Gupta^a and Mridula Mishra^b

^a*Research Scholar at Lovely Professional University, Phagwara, Punjab, India*

^b*Professor at Lovely Professional University, Phagwara, Punjab, India*

Abstract

Introduction: Artificial intelligence (AI) assists recruiters in effectively and efficiently nominating applicants precisely and accurately. It helps in the screening of resumes without biasness. This chapter will identify different AI technology and various organisations using it fully or partially.

Purpose: This chapter aims to get insights about various AI tools that assist human recruiters, save time and cost, and provide modern experiences. It will help identify various applications that are currently in use and their features. It also helps in finding out the benefits and the challenges faced by the recruiters and the applicants while assimilating those applications in hiring.

Need for the Study: The study will be helpful to all those recruiting firms who are presently using AI or not using it to understand the benefits and challenges they might face.

Methodology: The chapter will be based on reviews and industry reports. This chapter will include a study related to human resource (HR) functions where AI is used. To give more insights into AI technology, this study mentions various applications like Mya, Brazen, etc., and their usefulness in recruitment. Also, special emphasis would be given to the recruitment functions as most companies use AI. Some companies like Deloitte and Oracle are using AI fully or partially will also be incorporated.

Findings: The study finds out that although many companies have started to use AI tools for recruitment, they have not explored all the algorithms

that can be used to complete the whole recruitment and selection process. Companies like L'Oréal use AI for candidate applications and recruiter screening, but human recruiters stand strong for assessments and interviews. AI's widespread use presents human resource management (HRM) practitioners with both opportunities and challenges.

Practical implications: The basic idea of the study is to scrutinise the related literature and find out the features, advantages and limitations/challenges of using AI which would be helpful for recruiters in better understanding of the technology-driven recruitment.

Keywords: Artificial intelligence; human resource functions; recruitment; algorithms; benefits; challenges

Introduction

HRM is concerned with employment practices: recruitment, performance management, training, and retention of employees. Recruitment is a process through which potential candidates are discovered to link them with those organisations where there is a job vacancy. In the words of Plumbey, 'Recruitment is a process to match the demands of the organisation'. The inclination of qualified candidates should also match with rewards and benefits the organisation are willing to provide the job.

The recruitment process is the primary step to creating a strong resource base. HR managers, among other management functions, have the most challenging duty of finding competent candidates with the necessary skills and abilities and matching them to job specifications to accomplish the organisation's goals and objectives. HR managers must understand the plans, functions, and conditions of firms to prepare the recruitment pool for new millennials who will be able to fit into the organisation. Modern AI technology tools are now replacing the traditional recruitment process. Technological advancement allows recruiting employees less time and money and sustain them using other AI tools. In digitally transformed firms, operations including making phone calls to potential customers, shortlisting resumes, and responding to candidates via email are shifted to AI software, making recruitment no longer a tedious procedure for HR employees. This breakthrough technology is equally outstanding in analysing candidates over-analytical capabilities and psycho-emotional characteristics and supporting recruiters in the earliest rounds. These ancillary benefits are also responsible for lowering the cost of hiring and giving management more time to fulfil their goals. Hence, it is of utmost importance to study all those technological advancements that may help an organisation work efficiently and economically.

AI technology refers to the ability of a device to perform roles that are generally linked with human intelligence, such as optimisation and reasoning through experience. The Encyclopedia Britannica states, 'Artificial Intelligence (AI), the ability of a digital computer or computer-controlled robot to perform tasks

commonly associated with intelligent beings'. Intelligent beings are those that can adapt to changing circumstances.

John M. C.Carthy gave the first definition of AI in 1956. He defined it as 'the science and engineering of making intelligent machines' (McCarthy, 2007). AI in HRM asserts that this machine should be able to engage itself in human-like thought processes like logical reasoning, learning and suggesting work.

The study of previous research on AI and its role in the recruitment industry suggests that now it is being adopted by many companies, whether wholly or partially, in the recruitment process. AI in the recruitment process has a vital role in talent acquisition. Finding the appropriate people to turn unique ideas into profitable brands is a problem for HR professionals in every sector, and achieving this aim with a low budget makes it even more challenging. Thanks to AI's prediction algorithms and data tools, this process has become simpler, easier, and more efficient. The organisation using AI for recruitment can reduce downtime, reduce cost, and help place the right candidate at the right place. It is incredible that from an HRM point of view, AI-based solutions appear to grow in completing complex tasks in less time and cost. AI in HRM plays a significant role in changing the conventional methods of HRM to modern methods. In the era of digitalisation, organisations are looking for intelligent, talented, and multiskilled HR in their task force to meet the rivalry organisations of the global market. The AI technology gives HR managers and leaders a tool to attract, retain, and encourage competent employees, which leads to the company's success and growth. AI has opened up new roads for organisations wherein they can use AI tools to select applicants who are not only qualified but are more skilled and talented. AI has proven beneficial in supporting HR in many recruitment processes, from data-driven talent mapping to behavioural assessments of prospective employees. Almost every stage of the hiring process has been improved since AI was used in recruitment and selection. AI empowers HR managers with customised research instruments and reliable analysis, which assist them in selecting the top personnel in the business. Furthermore, AI enables organisations to foresee the future wants and desires of the people they wish to hire, influencing them with appealing plans and offers based on such future evaluations.

AI has various tools such as chatbots, biometrics, intelligent search, optical character reader, and game theory that can be used in different functions of HRM like recruitment, training, performance management, compensation, retention, etc. The main tools that recruitment industry uses are chatbots and intelligent search algorithms. These tools offer various advantages of AI in the recruitment process, such as reducing biases, increasing the quality, and decreasing the cost and time for applicant screening. The chapter focuses on various aspects of AI used in the recruitment process and the advantages and challenges an organisation might face while assimilating this modern technology into its system. It will help the readers understand how AI helps an organisation's HR department reduce its cost and effort while also facing some obstacles.

The question arises, what are Recruitment Chatbots? Recruitment chatbots are virtual recruiting assistants that are computer software programs that can perform tasks like conversing with the candidates, applicant screening, scheduling

interviews using messaging channels like text messaging, Facebook Messenger, etc. It is indeed a powerful tool for talent acquisitions. Chatbots are transforming and assisting in the recruitment process to learn about candidate experience, for communicating effectively with both candidate and recruiter, questions and answers, to identifying qualified candidates and scheduling conversations, and finally, chatbots collect all requirements from the candidate prior to his/her entry into the organisation. These chatbots save time and effort and improve the overall candidate experience. AI-enabled chatbots can carry out human conversations in messaging, including the unique method of utilising words, abbreviations, and emotions. In the end, it will operate on the principle of natural language to assist the conversation process. My Recruiting Assistant (Mya), Olivia, and Brazen are some of the AI tools that are commonly utilised in recruitment. After a candidate applies on an organisation's website, Mya contacts them. Mya provides a scorecard and transcripts to the applicant tracking system once the conversation is finished. The candidate is then scheduled for an interview. The software streamlines the candidate communication process by giving real-time support and suggestions throughout the recruitment process (Nawaz & Gomes, 2019).

The majority of job applicants do not receive communication from the business. The AI tool assists in sending personalised information and messages to each candidate. According to Phil Strazzulla (2021), half of all applicants get hired by another company if they do not receive a response within two weeks of applying. Also, the candidates get more interested when they receive a customised message instead of an automated mail. When a candidate is chosen, he undergoes a notice period. If this employee does not communicate with the employer throughout this notice period, he may leave the company and seek employment elsewhere. This is a problem that AI can help solve. Regular communication aids in the maintenance of the relationship with the workforce. This helps retain staff and saves a lot of time and money that would otherwise be spent on recruiting new employees. Chatbots can curate these customised messages by leveraging natural language processing to make interactions personalised. Some of the best recruiting and HR chatbots are:

1. Olivia:

Olivia is a product of Paradox. The conversational AI assistant saves the world's best talent acquisition teams countless hours and creates a unique world-class candidate experience by automating recruiting tasks through smart, simple conversations. It supports brands like Unilever, Nestle, Aramark, etc., the following features of Paradox's HR chatbot are:

1. It helps in scheduling interviews in seconds.
2. It answers any question in any language. Thus, it is multilingual.
3. It helps in sending reminders to potential employees to reduce no-show rates.
4. No need to replace the existing systems the company is already using. Olivia works alongside the core tools – workday, cornerstone, taleo, etc.
5. Deliver a real-time applicant experience by answering thousands of questions right away.

6. Olivia can gather input at any point during the employment process, from the first meeting to the first day in the workplace.
7. Let candidates apply via text message, voice, or video.
8. It can share the company's video content in conversation based on what the candidate asks.
9. It can also invite candidates to record videos to share more about themselves.
10. Olivia can integrate with Skype, Teams, and Zoom and automatically include links when it sends the calendar invite.
11. It can also use a simple link in the event conversation to ask candidates to attend a quick video chat, eliminating the need to download additional software or deal with logins.
12. Hosting virtual job fairs where Olivia handles registrations and event reminders and introduces candidates to a live recruiter on the day of the event (Paradox.ai, n.d).

2. Brazen:

The Brazen recruiting chatbot assists in pre-qualifying candidates, answering significant questions, and even collecting contact information for follow-up by the organisation. It helps the candidates and the organisation to walk the path that directly links to each other. Brazen's recruiting chatbot saves time by allowing the organisation to have live talks with qualified prospects at any time and from any location. One of its unique qualities is that it responds to candidates in text and video format. Few organisations that are using Brazen are Advent Health, KPMG, etc. Some other features of Brazen are listed below:

1. Custom landing pages are designed to reflect the employer's brand and optimise to guarantee that interested candidates sign up for the company's virtual event.
2. The organisation can use built-in candidate sourcing methods to promote their event on thousands of job boards and websites to broaden its reach and attract top talent.
3. Brazen seamlessly transforms text-based chats to video and audio chats with a single click.
4. The platform includes high-definition videos. There are no third-party video integrations required.
5. Webinars are streamed live from the virtual hiring event. There are no third-party integrations needed.
6. Brazen can add up to four speakers for panel discussions or multipresenter webinars.
7. Uses the built-in conversation stream to interact in real-time. Answers audience questions, keep an eye on the remarks, and maintains eye contact throughout the presentation.
8. Record live webinars to share with applicants and use in marketing materials for recruitment.
9. After the chats, rate, and categorise candidates to help prioritise follow-up.
10. Attach resumes, chat transcripts, and personalised messages to emails sent to hiring managers, candidates, and other recruiting team members.

11. Schedule more interviews with qualified applicants.
12. Other benefits include tracking candidate performance, which will aid in performance management and training.

3. Mya:

Mya is a recruitment chatbot that helps in accelerating applicant communication and conversation with the conversational tool. It reduces the time between application and interview, improves the applicant experience after applying, and links recruiters with quality candidates. It provides support to companies like L'Oréal, Deloitte, etc. One of the main features of Mya is on every apply path. Mya recruit optimises productivity, speed, and applicant to hire conversion. Some of the other features include:

1. Mya recruit identifies the best-fit prospects and arranges for interviews with them.
2. There are three ways to apply with Mya recruit: message to apply, career site/job board, and Facebook Ads.
3. Applicants can communicate with Mya recruit by SMS, Web chat, or Facebook Messenger.
4. Mya recruit screens a large number of applicants in a short amount of time without compromising the candidate's experience or the business brand.
5. Allows recruiters to concentrate their efforts on pre-qualifying top candidates for highly skilled professional posts.
6. Mya recruit enhances any other screening completion rates by creating strong completion rates.
7. Google Calendar, Office 360 Calendar, and Application Tracking System (ATS) Calendars are all compatible with Mya recruit scheduling.
8. Recruiters can use their calendar or the Mya Portal to create available times for Mya recruit to book appointments.
9. It has multilanguage support, regulatory compliance, and messaging apps.
10. Mya makes candidates feel like they are catching up with their favourite recruiter. Conversation design creates strong engagement and efficiency.
11. Mya refreshes basic information such as location, email, and phone number.
12. Mya enriches candidate profiles with job history, work status, work authorisation, etc.
13. Mya engages candidates about a specific job. It informs, answers questions, screens, and schedules (Mya, n.d).

Multiple such chatbots are currently being used in the world. This technological advancement has made the work of HR managers easier and faster. AI applications allow recruiters to concentrate on what they are doing best while leaving the monotonous work like capturing candidates, scheduling, screening communication, interviews and engagement (Ashwani, Upadhyay, & Khandelwal, 2018). A social media scrapping tool is an AI recruiting tool that collects a large amount of information through an applicant social media profile and uses that information to analyse behaviours such as future engagement levels and

turnover (Ahmed, 2018). Some of the applications known as social media scrapers are Octoparse, Dexi.io, OutWit Hub, Zyte, Parse Hub, etc.

Unilever is one of the companies that has been using an effective AI tool known as Pymetrics (Ahmed, 2018). Pymetrics transforms the hiring process for future generations. It helps identify the highest potential candidates to move forward with fairness and accuracy. The assessments of Pymetrics are based on Gold – Standard behavioural research. It uses core games to fairly and accurately measure cognitive and emotional attributes – attention, generosity, risk tolerance, fairness, etc. It has additional games which can measure quantitative reasoning and numerical ability (Pymetrics.ai, n.d).

The L'Oréal Case

Along with Mya Systems, a firm that provides AI problems for the recruiting business, L'Oréal launches its first conversational platform. This chatbot, which targets candidates looking for internships and roles such as beauty consultants, has been fully implemented in the United Kingdom, The United States, and France as of September 2018, with plans to expand to other nations later.

These initial launches improved candidates' sense of achievement and enabled L'Oréal, which receives over 1 million application forms each year, to handle a greater quantity.

According to the results of the first few recruiting conversations, Mya efficiently engages with 92 per cent of our candidates and achieves a near 100 per cent satisfaction rate. Our applicants have provided us with excellent feedback. Many people remarked on how simple and intimate the experience was. (says Nilesh Bhoite, L'Oréal's Chief Digital Officer for Human Resources) (Loreal, 2018)

L'Oréal provides the specific requirement that candidates must meet for each post and collaborates with Mya to improve the tool to design a solution tailored to the Group's recruitment needs. The Mya chatbot can ask candidates factual questions to determine whether their profiles match the job requirements: Are you available on the internship's start date and for the duration of the internship? What year are you in, and how long have you been pursuing your degree? Do you need us to make any reasonable accommodations so that you can complete your application? Do you have any questions about the company's culture, the application process, or the job itself? This type of unbiased, objective screening goes beyond resumes to intelligently streamline the search for new talent.

Mya is simple to use and can be accessed from anywhere at any time. Mya shows itself as a chatbot right away. Qualified applicants are contacted by recruiters at the end of the first phase. This technology delivers continuing updates and reminders for a more thoughtful, experience centred on people, which is especially beneficial in a world where many job searchers lack the necessary level of knowledge about their application follow-up. (Using Artificial Intelligence in order to help candidates experience, 2018)

The key benefits of using AI technology tools in hiring process are as follows:

- i. *Real-time communication:* AI allows for real-time and personalised communication, resulting in more efficient candidate acquisition. It can be aggravating when promising candidates do not hear from recruiters, who can take up to a week to begin examining candidates. AI is used to inform candidates who have been rejected so that they can continue their job search. AI recruitment software analyses and assesses resumes for skills, experience, and other qualifications within 24 hours of receiving an application and responds positively or negatively (Ashwani et al., 2018).
- ii. *Efficiency in candidate acquisition:* AI-assisted recruitment agencies may now process a greater number of applications and serve a greater number of clients with current personnel. Recruitment agencies can now pursue both a high volume and a high-touch strategy simultaneously, resulting in a long-term engagement with candidates due to AI-based automation (Ashwani et al., 2018).
- iii. *Easy information:* The organisations will be able to convey their information easily and quickly through chatbots while the recruitment department can work on the more productive work. The information would be easily transmitted from job seekers to HR professionals or *vice versa* via AI tools.
- iv. *More focus on productive work:* Because AI can handle the dull, time-consuming, and monotonous activities of CV screening, HR managers may take on new leadership roles and mentorship. They can concentrate on developing relationships, talent management, skill restoration, and managing a varied workplace culture (Brishti & Javed, 2020).
- v. *Unbiasedness:* Candidate selection is done entirely by machines, with no human involvement. As a result, unbiased screening and applicant selection are possible (Geetha & Bhanu, 2018). To avoid unconscious bias, AI is intelligently programmed. Primary sources of prejudice, such as names, schools attended, sex, age, and ethnicity, can be ignored by AI-powered systems. One of the most significant difficulties facing the employment market is a skills deficit (Bullhorn, 2018).
- vi. *Quick responses:* AI tools such as chatbots helps candidates to reduce their waiting time and get their queries cleared within a few seconds. Also, candidates do not have to wait for many days to get information and take their decisions in less time.
- vii. *Feedback to non-selected candidates:* Candidates who are rejected are provided feedback on their qualifications or skill limitations, allowing them to grow through a high-touch pleasant experience. AI-powered systems can nurture candidates by placing them in roles that are relevant to their current and future employment (Ashwani et al., 2018).
- viii. *Fills skill shortage gap:* AI-driven automation aids in the fulfilment of the skill shortage gap by replacing recruiters' abilities. Recruitment firms may now enhance their automation to provide judgement, versatility, safety, and calmness (Ashwani et al., 2018).