

HR ANALYTICS

Fundamentals and Applications



Dr. Pardeep Kumar

Sultan Chand & Sons

HR Analytics

Fundamentals and Applications

Dedicated to
Lord Rama

HR Analytics

Fundamentals and Applications

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P

PREFACE

In today's data-driven business environment, Human Resource Analytics has emerged as a critical function that enables organisations to move beyond intuition-based decision-making towards evidence-based people management. By systematically analysing workforce data, organisations can gain meaningful insights into employee behaviour, performance, engagement, and retention, thereby enhancing organisational effectiveness and achieving strategic business objectives. HR analytics empowers organisations to optimise recruitment processes, identify high performers, address attrition challenges, plan workforce requirements proactively, and align human capital strategies with overall organisational goals.

Human Resource Analytics provides objective insights into workforce dynamics, allowing HR professionals to identify areas requiring improvement and to design targeted, measurable interventions. Through analytics, organisations can assess employee satisfaction and engagement, evaluate the effectiveness of training and development initiatives, manage compliance with labour laws, and mitigate risks related to employee relations and workplace safety. By leveraging predictive and prescriptive techniques, HR analytics also supports succession planning, leadership development, and future talent readiness, ensuring sustained organisational success.

Analytics is no longer confined to statisticians or data scientists; it has become relevant across all functional areas, including Human Resource Management. In recent years, the HR community has increasingly embraced analytics to enhance decision-making and demonstrate measurable value creation. This book, HR Analytics, is designed to introduce readers to this evolving discipline and to build a strong conceptual and practical foundation in the application of analytics within HR functions.

The primary objective of this book is to provide students and practitioners with a comprehensive understanding of HR analytics concepts, tools, and applications. It covers key metrics, KPIs, and analytical processes across major HR sub-domains such as recruitment, performance management, employee engagement, workforce planning, diversity, equity and inclusion (DE&I), employee wellness, and succession planning. Ethical considerations, data privacy, and compliance issues are also addressed to ensure responsible and fair use of HR data.

This book offers an in-depth examination of the strategic role of HR analytics in contemporary people management. It explores descriptive, predictive, and prescriptive analytics, while highlighting real-world applications that demonstrate how analytics can improve HR decision-making and organisational outcomes. Practical tools, templates, dashboards, and survey instruments are included to help readers translate theory into practice. Emerging trends such as Agile HR Analytics and the use of artificial intelligence and machine learning are also discussed, providing a forward-looking perspective on the future of the field.

Written in a clear and accessible manner, this book breaks down complex analytical concepts into easily understandable explanations, avoiding unnecessary jargon and emphasising clarity. The content is structured to support both academic learning and practical application, making it suitable for undergraduate and postgraduate students pursuing programmes such as B.Com, BBA, MBA (Human Resource Management), MBA (Business Analytics), B.Com (Business Analytics), and other related courses. It also serves as a valuable reference for HR professionals, educators, and practitioners seeking to strengthen their analytical capabilities.

Each chapter begins with clearly stated learning objectives and an introductory case that establishes the theme and practical relevance of the topic. The chapters are enriched with real-world examples, case studies, charts, graphs, and visual aids to enhance comprehension and engagement. Review questions encourage active learning, critical thinking, and problem-solving. The book is aligned with the National Education Policy (NEP) 2020 and covers the revised syllabus requirements, making it particularly useful for examination preparation and academic success.

This textbook is organised into twenty-two well-structured chapters, each building logically upon the previous one to ensure smooth conceptual progression. Every effort has been made to present updated, relevant, and comprehensive content that reflects current industry practices and academic standards.

The author expresses sincere gratitude to the publisher, Sultan Chand & Sons, for their unwavering support and commitment in bringing this book to fruition. Heartfelt thanks are extended to Pratap Sir, Dr. Shubhra, G.D. Choudhury Sir, and the entire editorial and production team for their valuable contributions. The author also acknowledges the encouragement and support of family members, without whom this work would not have been possible. Constructive feedback and suggestions for further improvement of the book are most welcome and will be gratefully appreciated.

Professor (Dr.) Pardeep Kumar



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About the Book

The book "HR Analytics: Fundamentals and Applications" presents an in-depth examination of the significance of HR analytics in contemporary human resource management. It addresses essential subjects such as the influence of HR analytics on organisational effectiveness, the application of predictive models in hiring and employee performance evaluation, as well as the advantages and obstacles associated with the adoption of HR analytics. The text provides actionable tools, methodologies, and strategies designed to improve HR decision-making processes. Furthermore, the book offers a thorough overview of various dimensions of HR analytics, including its importance, data collection and management techniques, and specific focus areas like recruitment analytics, performance management analytics, training and development analytics, employee engagement analytics, and diversity, equity, and inclusion (DE&I) analytics. It emphasizes critical themes such as Key Performance Indicators and Metrics, alongside the impact of HR analytics on organisational performance. In addition, the book delves into ethical considerations, strategies for implementation, and the role of HR analytics in workforce planning, succession planning, and employee wellness initiatives. It also examines how to monitor the effects of interventions and provides insights into the future landscape of HR analytics. Rich in theoretical content, diverse application methods, and numerous case studies and critical-thinking exercise, this book is essential for commerce, business, and management students and professionals seeking to develop expertise in data analysis within the HR field. With an emphasis on practical applications, this resource is invaluable.

Salient Features

- ❑ Integration of theories with practical case studies for application-focused learning.
- ❑ Emphasis on descriptive, predictive, and prescriptive analytics within HR.
- ❑ Extensive examples and real-world case studies for action-driven learning.
- ❑ Highlights the importance of ethics and compliance in the evolving field of HR analytics.
- ❑ Explores the future of HR analytics and emerging trends, offering a forward-thinking perspective.
- ❑ Recognizes the necessity of keeping abreast of current HR analytics trends.
- ❑ Delivers a straightforward, accessible, and engaging narrative, making the book user-friendly.
- ❑ While primarily aimed at Management, Commerce and Business students of Undergraduate and Postgraduate levels, MBA (Business Analytics), MBA (HRD), MBA, BBA, B.Com. (Analytics), B.Com. (P), and other Professional Courses, the book is also highly beneficial for professionals in the industry.

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