Irma Doze and Toine Al

Data-Driven HR

Creating Value with
HR Metrics and HR Analytics

Translated from the Dutch by Bill Nagel

IRTI Intelligence
Publishing | Amsterdam

To our partners
Ties & Martien

About this book

"Human Resource Management (HRM) is crucial for the performance of organizations. HR professionals and HR scholars struggle to reform HRM into a strong profession with high reputation and credibility. Important ways to enhance the reputation and credibility of HRM are HR Metrics and HR Analytics. The book written by Irma Doze and Toine Al is an excellent tool to learn more about these methods. A "must read" for both management students, HR professionals, and HR scholars."
Karin Sanders,
Professor HRM, School of Management,
UNSW Business School, Sydney, Australia

"Wonderful book! Great storylines—and very thorough."
Gerard Evers, director of EuroHRM,
former professor of Human Capital Valuation, Tilburg University

"This book is one of a kind. It's substantial but deserves kudos for its thoroughness and readability."
Mark de Lat, director, Randstad Nederland

"Very practically oriented without ever losing sight of the theory and without requiring the reader to have any prior knowledge of statistics or data analysis. I heartily recommend this book to every HR professional—period."
Bas van de Haterd, speaker, author, and consultant

"A magnificent piece of work; sound, thorough, and perfectly readable even for those who know little or nothing about HR analytics."
Tiny Beks, Lecturer in HRM, Avans University of Applied Sciences

"Data-driven HR policy is the future, and this book has everything it needs to become a standard text for HRM education and training. Recommended for anyone who wants to get into personnel management."
Michiel van Asbeck, director, RaymakersvanderBruggen

About HR analytics

"HR analytics will be essential for HR to continue to make a critical contribution to organizational strategy in the future."
Hein Knaapen, Global HR Director, ING

"HR analytics gives us a method to better understand the effect of HR policies and activities."
Patrick Coolen, Manager of HR Metrics & Analytics, ABN AMRO

"HR analytics will be a game-changer in the long term. It will ensure that HRM is based on systematic scientific research that provides evidence of whether something works or not."
Jorrit van der Togt, EVP of HR Strategy & Internal Communications, Shell

Foreword

As we put the finishing touches on the newest version of this book—the first to appear in English—the first edition from 2015 is already four years behind us. As we anticipated at the time, interest in and enthusiasm for the HR analytics and data-driven HR will only continue to rise worldwide.

An interview about HR analytics brought us together in the spring of 2013. When the interview was over, we continued chatting about the subject. We were in agreement that there was a lack of clarity as to what HR analytics actually encompasses and how HR can use it to make policy formation and the implementation of HR tools more data-driven. We got down to work in the autumn of 2013, and by February 2015 we had a complete manuscript. In the intervening year and a half, we learned a lot about the subject, about each other, and about the people named below. They made the first Dutch-language book about HR analytics possible.

In the years following the publication of the first edition, we have seen more and more companies, institutions, and governments discovering the potential of data analysis and ever more colleges and universities expanding their educational programs with subjects such as data-driven HR, HR analytics, and HR metrics. This has a broader context: society is learning that data technology now touches every aspect of our lives. This offers opportunities but also poses challenges and risks, such as in the fields of data security and personal data protection. Both are a precondition for being able to apply the full extent of data-driven HR and make the most of it. Organizations and everyone who works in them—management, leadership, *and* employees—need insight into how data technologies work and how to best use them.

To do justice to recent developments and changing regulatory environments, especially in the area of privacy, we have updated, augmented, and refined the book; we have also had it translated in response to the regular requests we have received from colleges, universities, and HR managers at multinationals to publish the book in English. We trust that this English edition will continue to help everyone who wants to understand all aspects of data-driven HR for years to come and serve as a guide and go-to reference for work and study.

Many people were involved in creating both the Dutch and English versions of this book. In particular, we would like to thank Gerard Evers, former professor of human capital valuation at Tilburg University; Tiny Beks, lecturer in human resource management at Avans Hogeschool; Mark de Lat, director of consultancy Randstad Neder-

Contents

Note to the reader

This book is for anyone who is interested in understanding the advantages of data-driven HR policy and applying data analytics and related disciplines within their own organization and HR practice. Data-driven HR has advantages for all types of commercial, noncommercial, and government organizations. The book has been written with a number of audiences in mind:

- HR managers and directors who want to gain insight into the topic and discover how they can use it in their organization
- HR business partners who want to broaden their knowledge and skills and work on an equal footing with HR analysts
- Current and future HR analysts who want to get their hands on the methods and techniques of HR data analysis
- HR consultants, business analysts, controllers, and line managers who want to deepen their knowledge of the subject and make use of the opportunities presented by HR analytics to help them do their work

HR analytics combines knowledge from a variety of disciplines, including HR management, labor and organizational psychology, IT, statistics, data analytics, marketing, planning, and strategy. The book contains many examples illustrating this. Depending on your interests, function, role, background, and information needs, you may find some chapters more relevant and useful than others. Depending on your existing knowledge and experience, you may want to skip some chapters at first and return to them later. Other chapters are indispensable to forming a good picture of the essence of the methodology and techniques. To make this process easier right from the beginning, we've summarized the various parts of the book and indicated which functions or roles they are most appropriate for.

Part I: Introduction

What is HR analytics and how does it improve existing HR practice?
The three chapters in Part I explain what we mean by HR analytics; how data-driven HR policy improves decision-making; how it seamlessly connects with existing methods of making HR measurable and plannable; and how it can strengthen current HR practices.

Chapter 1 describes the development of the concept of data analysis since the 1980s; the steady growth in applying data analysis to improve HR instruments and processes

since 2005; and the opportunities that big data and modern communications technologies present.

Chapter 2 addresses the question of why HR should make use of analytics and data-driven decision-making. This chapter goes deeper into the shortcomings and disadvantages of traditional decision-making methods, which are primarily based on knowledge, experience, and personal judgement. Among other topics, we call attention to new insights from psychology that shed light upon the (irrational) manner in which people weigh options and make choices.

Chapter 3 goes into more detail about how to make HR measurable, including measurement methods that have been developed since the 1960s, and what possibilities data analysis and predictive models add to this. This chapter treats HR analytics as a part of business intelligence. It also introduces the data-driven HR policy life cycle, which has eight phases and includes HR analytics.

Part II: Methodology

How are each of the eight steps of an HR analytics project carried out?
The eight chapters in Part II show how to make practical use of the eight steps of the data-driven (HR) policy life cycle and describe all of the statistical methods and techniques associated with it. Part II is a bit more technical than Parts I and III and is specifically aimed at HR analysts and HR business partners.

Chapters 4, 10, and 11 are primarily intended for HR business partners; Chapters 6, 7, and 8 are aimed at HR analysts; Chapters 5 and 9 are for both roles.

Part II proceeds to the process of defining the right business questions; translating these questions into one or more analytics questions; collecting and preparing the necessary data; applying various methods of data and statistical analysis; and translating the results and conclusions obtained into reports and visualizations.

We then explain what specific HR interventions, processes, policies, and strategies the insights you discover can lead to and how to monitor these post-implementation using metrics. Visualization plays an important role here, in the form of writing reports and configuring dashboards.

Part III: Implementation

Implementing HR analytics functionality that fits the organization

The three chapters in Part III describe how HR management can organize and implement HR analytics and the data driven policy life cycle.

Chapter 12 explains which competencies and IT facilities you need for this; how to manage data carefully; what you need to further build out the HR analytics functionality on various levels; and how to adapt the level to the needs and ambitions of the organization.

Chapter 13 takes an extensive look at privacy regulations, how to apply HR analytics according to the rules, and how to take a sensible approach to privacy. This gets a lot of attention in society, and organizations must take the sensitivities of people both inside and outside of the organization on the topic of privacy into account. This chapter explains how to process the personal data that feeds HR analytics without running into problems.

To bring the book to completion, Chapter 14 provides a checklist to determine what level your organization is at and what it needs to begin with the first HR analytics project.

Guide for the reader

The table below will help you ascertain which chapters you should read to obtain the level of knowledge you need to perform your role or function in the organization. This is, of course, just a guideline.

Recommended chapters for each function or role in the organization:

Section	Part I	Part II	Part III
Function or role	Chapter(s)	Chapter(s)	Chapter(s)
HR director	1, 2, 3	(4)	12, 13, 14
HR manager or HR business partner	1, 2, 3	4, 5, 9, 10, 11	12, 13, 14
HR analyst	-	4, 5, 6, 7, 8, 9, 10, 11	-
HR analytics manager	1, 2, 3	4, 5, 6, 7, 8, 9, 10, 11	12, 13, 14
General manager	1, 2, 3	4, 5, 9, 10, 11	-
Business analyst	1, 2, 3	4, 5, 9, 10, 11	-
Controller	1, 2, 3	4, 5, 9, 10, 11	-

Wherever possible, we provide examples and illustrations of the models discussed in the book. These are often based upon existing materials and have been adapted for the purposes of this book. The original sources for each of these are noted in footnotes and the bibliography.

Afterword

We would like to wish our readers and their organizations every success in applying data-driven HR using HR metrics and HR analytics. Although the contents of this book are rich and varied, we have had to make choices. Among the changes we made in the second edition were adapting and augmenting the chapters on statistics and personal data. The English edition adds more current examples and puts privacy rules into a more international context.

We are open to all suggestions, ideas, and recommendations for a future edition and invite anyone who is interested to contact us or the publisher. For more information, or to fill in the online questionnaire—which we will reward you for doing by sending the summarized results and a benchmark—please visit our website at https://www.analitiqs.com/en/hr-analytics-scan/.

Irma Doze and Toine Al
Amsterdam, 2015–2019

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Index

7S model *173*

A

ABN AMRO *5, 15, 191, 198, 206*
Absenteeism *6, 14, 16, 36, 63, 68-70, 73-74, 76, 105, 150, 153, 160, 167, 177, 188, 190, 193, 201, 210*
Accuracy *36, 97, 137-140, 210*
Achmea *5-6, 11-12, 15,190-191, 198*
acting irrationally *26*
administrative expert *159*
advanced analytics *7, 192*
aggregated data *86-87, 207*
aggregation *101-103, 209*
  - bias *87*
Airbnb *203*
algorithm *17-18, 20, 34, 36, 59-60, 63, 82, 130, 133, 228*
Alphabet (company) *4, 36, 96*
AlphaGo *36*
Amazon *10-11, 20*
AnalitiQs *11, 13, 70, 76, 105, 187, 201, 229*
Analytics
  - culture *187, 191, 201, 225, 228*
  - problem *44, 53, 55-57, 59, 61, 63-65, 67-68, 71-72, 200*
anonymization *76, 207, 209-210*
Aon-Hewitt *71*
Apple *7, 20, 32, 222*
argument *17, 24, 141, 144, 147, 150-151*
Ariely, Dan *22*
ARIMA model *131*
arithmetic mean *108, 111, 113*
artificial intelligence (AI) *36, 60*
as-is state *47-48, 50-51*
assessment *18-19, 25, 52, 73, 93, 162, 168, 172, 194, 213, 216, 218-219, 222*

average *15, 31, 35, 48, 86-87, 101-102, 108-109, 111-113, 115-116, 122, 128-130, 149-150, 160, 166-167, 169, 175, 176, 181, 183, 209, 213*

B

balanced scorecard *31-32, 174-175*
Baptist Health Care *15*
bar chart *119, 151-152*
Barrett, Richard *78*
barrier *50-51*
baseball *7, 222*
basket analysis *134-135*
Bassi, Laurie *6, 17*
Beane, Billy *7*
benchmark *30, 32, 76, 131, 154, 160, 170-171, 189, 225, 227, 229*
benchmarking *13, 29, 31-32, 77, 189*
Bersin, Josh *12-13, 188, 190*
best practice *32, 170*
big data *8-10, 12, 67, 80-82, 89, 91*
binding corporate rules *214*
Bock, Laszlo *17*
Boeing *8*
BrainCompass *213*
briefing *64, 192*
Brin, Sergey *9*
brontobyte *9*
bullet graph *182-183*
business
  - analytics *28, 191-192*
  - canvas model *173*
  - intelligence *26-28, 89, 187, 193*
  - question *11, 29, 37-40, 43-47, 49-53, 55-59, 61, 63-65, 67, 85, 105, 140, 143-144, 146, 157, 159-160, 162, 165-166, 183, 187, 191-192, 199-200, 226-227*

Harver *18*
Hill, Austin Bradford *126*
historical data *90, 135*
Homo economicus 22, 25
HR
  - analytics department *198, 201, 228*
  - analytics function *196, 198*
  - analytics functionality *188, 224*
  - analytics manager *197*
  - analytics team *45, 190, 198-200*
  - control *29, 106, 196, 201*
  - database *8*
  - policy *8, 14, 19-21, 26-29, 31, 35, 37-40, 43, 51, 55, 57, 67, 85, 105, 136, 143, 155, 157-163, 165, 188, 223, 227*
  - scorecard *32, 39, 175-177, 179, 225, 227*
  - strategy map *176*
  - system *7, 68, 89, 127, 171, 193, 195,*
Huizinga, Johan *22*
Human Capital Group *70*
human
  - capital monitor *178*
  - resource accounting *29*
  - resource management (HRM) *5, 11, 158, 187*
Human Resource Performance potential Portfolio (HR3P) model *73, 136*

I

IBM *192, 195*
  - Deep Blue *221*
  - Netezza *195*
  - SPSS Modeler *195*
  - SPSS Statistics *195*
  - Watson *195, 223*
ideal profile *135*
Ilmarinen, Juhani *70*
image research *79*
impact *6-7, 22, 58, 73, 94, 123, 131, 134, 154-155, 159, 162, 170-171, 178-179, 188, 190, 196-197, 213, 218-219*
indirect personal data *209*

individual asset multiplier (IAM) *178*
induction *142*
inductive reasoning *142*
ING *5, 198*
inner join *99*
innovation *4, 6, 18-19, 27, 31-32, 62, 161-162, 188, 222*
insights *5-6, 8, 10, 13-15, 18, 22, 28-29, 33, 37-39, 43, 46, 55, 59-60, 65, 67-68, 70, 75, 78, 84-85, 100, 105, 109, 140-141, 143, 155, 157-163, 165, 170, 171, 190, 196, 200, 211, 223-224, 227*
Institute for Employee Benefit Schemes (UWV) *68-70*
Institute for Work and Stress (IWS) *69*
integrated data warehouse *193, 195*
Intelligence Group, The *70, 100*
internet of things (IoT) *80*
internet policy *212*
interquartile range *113-115*
interrelationship diagram *127, 141*
interval *137-138*
  - scale *108, 151*
  - variables *108*
irreversible anonymization *210*
ISBK method *47*
issue tree *37-38, 56, 60-62, 65, 67*
IT infrastructure *192*
item comparison *150*

J

Janssen, Jan Pieter *45*
Jevons, William Stanley *22*
job market *15, 100, 136, 184, 198*

K

Kahneman, Daniel *22-23, 78, 172*
Kasparov, Garry *221*
key performance indicator (KPI) *30-32, 39, 63-64, 85, 165, 167-173, 175-177, 179, 182-183, 189*

key
  - question *50, 52, 61, 144*
  - success factor (KSF) *175*
  - variable *94, 99*
Kluijtmans, Frits *20*
Knack *3-4, 18*

L

Labor Market Behavior Study *70*
Lamme, Victor *22*
least-squares method *121-122*
Lentz, Richard *147*
Levie, Howard *147*
Levis, Jack *81*
Lewis, Michael *7*
library *13, 25, 91-92*
lifetime value *177-179*
line chart *152, 154*
LinkedIn *81, 207*
logistical regression *128, 130*
lookalike *135*
Lowe's *15, 35*

M

machine learning *36, 60*
Manpower Group Netherlands *198*
market research *69, 70-71, 75*
Markov model *179*
Marx, Karl *22, 157*
mathematical model *36, 58, 133-134*
Matlab *195*
maturity model *12-13, 30, 188, 191, 226*
McKinsey *80, 144*
Measurement *14-15, 20, 30-31, 107, 149, 165, 172-173*
Median *95, 111-114, 119*
Megabyte *9*
Message *52, 143-147, 150-153, 179-180*
Metrics *5-6, 12, 29, 31, 37-38, 40, 76, 86, 107, 165-167, 169-170, 173-174, 179-180, 182-183, 190-191*

Microsoft
  - Power BI *115, 119*
  - SQL Server *195*
Microstrategy *195*
mind map *127*
Minto, Barbara *144*
Mode *111-113*
moderation effect *59*
mood tracker *82*
Morozov, Evgeny *222-223*
multiclient research *70*
MySQL *195*

N

naive Bayesian classification *130*
National Compensation Study *70*
nearest-neighbor algorithm *130*
Net Promoter Score (NPS) *77, 175, 179*
net sample size *138, 139*
Netherlands Ministry of Defence *198*
Netherlands Organization for Applied Scientific Work (TNO) *22, 68-70*
Netherlands, the *5, 13, 15, 18, 20, 68-70, 187, 198, 204-205, 207-208, 211-213, 215-216*
neural networks *130*
New England Journal of Medicine *124*
new tables *101*
nine-box grid model *73, 136*
Nobel Prize *22, 124-126*
nominal variable *107*
norm *171, 178, 183, 204, 223*
  - line *153*
normal distribution *112, 113*
numeric *95, 108-109, 111, 119-120*

O

Oakland Athletics *7*
online analytics processing (OLAP) *119*
optimization *30, 36, 50, 56, 107, 133, 158, 200*
Oracle *192*
  - PeopleSoft HCM *195*

ordinal variable *107-108, 130*

outer join *99*

outlier *114-115*

output *173, 194, 221, 223*

overconfidence *25*

overestimate *25*

P

Paauwe, Jaap *7, 44*

Page, Larry *9*

Panasonic *8*

Pattern *82, 86, 96, 106, 109, 113, 115-116, 128, 131-132, 149-150, 170, 184, 189, 228*

people analytics *7*

performance indicator *11, 13, 26, 30- 31, 39-40, 85, 165-167, 172, 177, 179*

performance management *16, 72, 89, 174, 179, 193*

periodic data sets *101*

personal data *63, 98, 203-219*

personnel
 - administration *72, 210*
 - file *211, 222*
 - record *31, 72, 91*

petabyte *9*

Philips *12*

pie chart *151*

pivot table *103, 119*

planning and control cycle *28, 29, 160*

Poelstra, Minke *11*

PON (company) *70*

Population *9, 75, 112, 132, 136-140*

PostNL *73, 191*

Power
 - Pivot *90-91, 100, 195*
 - Query *90-91, 100, 101, 195*

Precision, (im-) *128, 131, 139*

predictive analytics *12, 106-107, 122, 128, 133-134, 170, 228*

predictive model *6, 13, 18, 20, 30, 33- 34, 63-65, 74, 128, 132, 137, 165, 190-191, 193, 195, 222, 225*

prescriptive analytics *105-106, 131, 133-135, 228*

primary comparison *152*

primary
 - data *8*
 - research *67, 75, 86*

privacy *63, 66, 76, 84, 196, 201, 203-206, 208, 210-211, 213-215, 217-221, 229*
 - Bridges *204*
 - impact assessment (PIA) *218*
 - Shield *204, 214*
 - statement *208, 217*

process *23, 33, 82, 85, 90-91, 103, 147, 200, 203, 205-208, 214-215, 217, 223*

processing registry *217*

profiling *63, 204, 212-213, 218-219*

pseudonymization *209-210*

p-value *120, 129*

PwC *8, 14*

pyramid structure *144-145, 147*

Python *91, 100, 195*

Q

Qlik Sense *195*

qualitative research *75, 192*

quality *15-16, 19, 21, 23, 28, 32, 37, 39, 64-65, 67, 72, 74-75, 79, 95, 97-98, 100, 103, 110, 136, 153, 158, 161-163, 168-169, 192-193, 200, 223, 227-228*

quantified self *82*

quantitative research *75-76, 82*

quantity *9, 80, 100, 168-169*

R

R (software) *195*

R² *123*

Rabobank *5*

Radboud University *25*

Raet *11, 195*
 - HR Analytics *195*

random forest analysis *130*

range *113-114, 151, 171, 181*