INDEX

Adaptive conjoint analysis, 193–194 Aggressive (optimistic) strategy, 212 Alternative hypothesis (H1), 87 Analytics technology cognitive technology, 44 HR data warehouse, 41–42 Human Resources Information System (HRIS), 41 reporting technology, 42–43 statistical analysis and machine learning technology, 43 visualisation technology, 43–44	pay mix, 199–200 target setting, 199 team vs individual incentives, 198–199 thinking analytically, 197–200 Confidence intervals, 175–176 Conjoint analysis, 190 adaptive conjoint analysis, 193–194 maximum difference conjoint analysis, 193 methods, 190 Multivariate Analysis of Variance (MANOVA), 197 rawards programs, 201–205
Benefits, 188–190	rewards programs, 201–205 self-explicated conjoint
Building models	analysis, 192
blueprint, 88–91 testing hypotheses, 87–88	two-item tradeoff analysis, 192
Business problem, 12–14	Conservative (pessimistic) strategy,
Business strategy, 144	213
	Costs cutting, 238–239
Career management, 85	Customer satisfaction data, 78
Career movements, 220	Customer service, 78 Cyclical effects, 154
Career planning, 242	Cyclical effects, 134
decision trees. See Decision	
trees	Data analysis, 107–112
mobility possibilities, 208–210 skills matching, 220	Data audits, 49–50
Central limit theorem, 174–175	Data challenges data outliers, 55–56
Clustering, 91	missing data, 52–53
Coefficient of determination, 92	no data available, 54–55
Cognitive ability tests, 184	outdated data, 53-54
Cognitive technology, 44	Data collection, 15-16
Compensation, 241	challenges and solutions, 52-56
diversity, 200	sources, 47–51
merit pay differentials, 199	tidying, 56–63
pay effectiveness, 198	Data gathering, 107–112

250 Index

Data outliers, 55–56	primary levers, 231
Decision trees	second key hypothesis, 228
decision strategies	Explanatory models, 157-158
definition, 210	External drivers
example, 210-212	competition, 106
types, 210	overseas opportunities, 106
career paths, 214–218	pay levels, 107–108
outcome probabilities with,	pay revers, 107 100
213–214	
outcome probabilities	Finance
without, 212–213	cost-related terms, 23
Delphi method, 153	market and performance
	measures, 22–23
Demand gaps, 149–152	profit, 22
Design framework	Financial projections, 144
building models, 86–91	Forecasting techniques, 152
data analysis questions, 85–86	explanatory/causal models,
scope, 73–76	157–158
source of problem, 69–72	indicators and indexes, 153
supervised and unsupervised	qualitative and judgemental
methods, 91–93	techniques, 152–153
value chain, 84–85	regression-based forecasting,
variables to business measures,	155–156
76–84	statistical time series model,
Diminishing returns, 127	153–155
	Functional training, 131
Educational institution, 110-111	
Eight-step approach	0 :6 : 474 472
business problem, 12-14	Gamification, 171–172
data collection, 15-16	Gender, 111–112
derive insights, 17	Google, 72
evaluation, 19–20	Grade point average (GPA), 167
execution, 19–20	
formulate hypotheses, 14-15	Hard data, 77
recommendations, 17	Hiring formula, 178–180
storytelling, 17–19	HR Business Partner (HRBP), 125
Employee Assistance Program	HR data, 47–48
(EAP), 79	HR data warehouse, 41–42
Employee loyalty analysis,	HR dimensions, 115
170–171	HRIS data, 48–49
Employee profiling, 169–170	HR policies, 223–235, 242
Employee sampling methods	Human Capital Analytics (HCA)
central limit theorem, 174–175	program, 96
confidence intervals, 175–176	Human Resources (HR)
sampling distributions,	analytics, 4–5
174–175	architects, 9–12
sampling plans, 172–174	changing nature, 3–4
Employee value proposition (EVP)	changing nature, 5— changing requests, 5
full-time employees, 231	descriptive analysis, 6
run-unic empioyees, 231	descriptive analysis, o

Index 251

diagnostics, 6 eight-step approach, 13–20 finance, 21–22 function, 4 maturity, 7 people analytics (PA), 5 predictive analysis, 6 statistics concepts, 23–27 talent acquisition, 29 talent deployment, 29–30	Organizational drivers dissatisfaction with managers, 108–110 performance ratings, 108 promotion opportunities, 110 Outdated data, 53–54 Pay levels, 107–108 Performance ratings, 108 Personality assessments, 184
talent development, 29 talent engagement, 29 talent retention, 30 types, 6–9 workforce planning, 28	Platform as a Service (PaaS), 40 Productivity, 239–240 Profits, 223–235, 239–240 Promotion opportunities, 110
Human Resources Information System (HRIS), 41	Random behaviour, 154 Recruitment, 84, 150, 241 employee loyalty analysis,
Individual drivers educational institution, 110–111 gender, 111–112 tenure, 111	170–171 employee profiling, 169–170 employee sampling methods. See Employee sampling
Infrastructure as a Service (IaaS), 40	methods gamification, 171–172
Job classification, 115	grade point average (GPA), 167 hiring formula, 178–180
Kirkpatrick model, 137-140	HR analytics, 168–169 segmentation, 169–170
Manager dissatisfaction, 108–110 Maximum difference conjoint analysis, 193 Multiple regressions	three levels analysing talent, 177–178 using tests, 181–183 workplace assessments,
HR metrics, 225 talent metrics, 225 Multivariate Analysis of Variance (MANOVA), 197	183–184 Regression-based forecasting, 155–156 Remuneration, 85 Reporting technology, 42–43
Opportunity loss strategy, 213 training, 130 Optimisation metric interaction, 124–125, 127–128 mixture, 124, 126–127 saturation, 124, 127	Retailco case studies, 232–235 Return on investment definition, 122–123 formula, 123 training, 129–140 Revenue, 239–240 Rewards programs, 201–205
saturation, 124, 127 segmentation, 124–126 time line, 125, 128–129	Seasonal effect, 155 Skills overlaps, 221

252 Index

Soft data, 78	definition, 37-38
Software as a service (SaaS), 40	on-premise solutions, 38
Sources of data	Tenure, 111
data audits, 49-50	Tidy data
HR data, 47–48	checking data tips, 59-60
HRIS data, 48-49	definition, 56–57
non-HR data, 49	general principles, 57-58
structured data, 50-51	mistakes, 58, 60-61
unstructured data, 50-51	plots, 61–63
Statistical analysis and machine	Training, 240
learning technology,	optimisation. See Optimisation
43	purposes, 121–122
Storytelling, 17–19	return on investment,
Strategic resourcing	122–123
business strategy, 144	ROI, 129–140
demand gaps, 149-152	Trends, 154
forecasting techniques, 152	Turnover, 240
supply gaps, 149-152	semiconductor companies,
workforce demand, 145-149	102–103
workforce supply, 145-149	data analysis, 107-112
Supervised and unsupervised	data gathering, 107–112
methods	design, 103-104
defining, 91	hypotheses/drivers, 104-107
model performance, 92-93	insights, 112
types of algorithms, 91	
	Uncertainty, 92

Talent acquisition, 29 Talent deployment, 29-30 Talent development, 29 Talent engagement, 29 Talent retention, 30 Technology options cloud based, 38-39

Uncertainty, 92

Workforce demand, 145-149 Workforce planning, 28, 240-241 Workforce supply, 145–149 Workplace assessments, 183-184