Index

Artificial intelligence, 99
  use of, 102
Automatization of process, 99, 100, 110, 177

Banking sector, 71
  banking risks, 72
  classical banking operations on crediting, 72
  credit organizations, expansion of activities of, 72, 73
    cognitive modeling, methodology of, 74–75, 76–77
    determining positive or negative influence, 76
    dynamics of distribution of managing influences, 78
    external impulse influence, 80
    fuzzy cognitive approach, 73–74, 75–76
    level of implementation of operational and credit risks, 81–82, 83
    problems of management and decision making in, 73
    process of crediting of individuals, 74–75
    qualitative analysis of cognitive modeling, 76
    risk management of POS-loaning process, 76–77, 78, 79
    strategies of development of POS-loaning process, 79–80
    verification of impulse stability, 79
  formation and implementation of the effective strategy, 71–72
  loans (POS loans), 72
    risk of, 76–77
  problem of decision making during risk management, 72–73, 75

Cobb-Douglas production function, 89–92
Computer decision-making, 87
  cognitive approach, 89
  decision maker (DM) in, 87
  decision support system (DSS), 87, 95
    features of creating, 88–89
    mathematical software of generalized, 88
    structural unit of, 89
  environmental management system, 93, 94
    environmental efficiency, 93
    in Russia, 93
    sustainable development indicators, 94–95
    value of environmental performance, 93–94
  fuzzy model of, 89

integral evaluation of social and economic development, 92–93
principle of continual improvement, 93
regional labor markets, evaluation of, 89
of social and economic system analysis, 88
systemic approach, 88

Energy efficiency, 151
energy intensity of Russian and Ukrainian economies, 152–154
GRP energy, 154–155
long-term State programs, 154
sectorial context, 154–155
global trend, 152
energy intensity indicators, 1991 and 2017, 152, 154
tools for developing and evaluating
analysis of performance of regions' energy efficiency policy, 159, 160–165
information base, 156
literature review, 155–165
method of factor analysis of energy consumption dynamics, 156–158
method of Russian regions classification, 158, 159, 160
External business entities, 15

Global experience of decision making, 45–46
business environment in North America, 49
causal connections, 45
criteria of successfulness, 47, 48
deep factor analysis, 45
marketing activity, 49
organizational culture, role of, 47
organizational structure, role of, 49
scientific works, 46
content analysis, 46–47

Highly effective managerial decisions, 115, 123
advantages, 119–120
algorithm, 117–118
issues of achieving, 116
mechanism of, 117, 119–120
regional models, 116
strategic foundations of, 124–125, 127
alternatives, 126–127
based on regional models, 127
marketing and collection of feedback, 126
resources necessary for implementation, 124, 126
works and publications, 124
top-priority criteria of optimality of, 119
works and publications, 116
content analysis of, 116

Industry 4.0, 99
Information provision of strategy and tactics
documentation of resources, 170
importance, 169–170
Innovative managerial technologies of decision making
advantages, 66–67
application of, 67
conceptual model of, 67
content analysis of publications, 64, 65

stages, 66
comparison of alternative variants of managerial decisions, 66
creation of electronic data base of managerial data, 65
determining opportunities of business systems, 65
digital marketing, 65
implementation of managerial decisions, 67
online data base of managerial data, 65–66
optimality of managerial decisions, 67
Integrated Definition Language (IDEF), 88
Intellectual technologies of support for managerial decisions, 100, 101, 177
advantages of, 102–103
determination of possibilities, 103
multi-task character, 102
scale effect during making of managerial decisions, 103
algorithm of complex, 103
application of, 100
artificial intelligence, 99
use of, 102
automatization of process, 99, 100
comparison of alternative variants of managerial decisions, 102
computer program, 101
determining possibilities of business system, 101–102
drawbacks of, 103–104
impossibility for isolated usage, 103–104
impossibility of digital form of parameters, 103
incomplete automatization, 103
security problem, 104
literature overview, 100
modeling (scenario analysis) of consequences of decision making, 102
reduction of risk of non-optimal decisions, 100
stage of implementation of the managerial decision, 102–103
Internal business entities, 14–15
commercial block, 15
financial block, 15
production block, 15
service block, 15

Leninist Communist Youth League Automobile Factory (AZLK), 28

Managerial decisions
in Asia, 48–49
leading practices of, 177–178
in modern business systems, 109–110
non-optimality of, 38
at macro-economic level, 38–39
optimality of, 37
barriers to developing optimal decisions, 39, 40, 41–42
literature on, 38–39
managerial (administrative) expenditures of business systems, 40

Russian practice of, 38, 39–40
perspective directions of improving, 110–113
stages, 112–113
studies and publications, 110
tools of, 112–113
principles of corporate responsibility, 37–38
rationality of, 37
See also Innovative managerial technologies of decision making; Intellectual technologies of support for managerial decisions; Mediator, role and functions of; Optimal managerial decisions; Optimization model for decision making; Process approach of managerial decisions
Mediator, role and functions of
as auditor (controller), 59
as business consultant, 59
features and advantages of solving conflicts in socio-economic systems, 56
literature on, 56
as psychologist and pedagogue, 58–59
as state regulator, 57, 58
as top manager, 59
violation of participation and, 57–58

Nizhny Novgorod industrial cluster, 169

Optimal managerial decisions, 37, 45, 49
barriers to developing optimal decisions, 39, 40, 41–42
contradictions in, 55, 56
structural and logical scheme of mediative solution of, 59, 60
factors and results, 50
managerial (administrative) expenditures of business systems, 40
Russian practice of, 39–40
Optimization model for decision making, 131, 140, 141
algorithm of implementation of, 149–150
hypothesis, 144
implementation of simulation modeling, 143–144
simulation modeling, 143
competing companies, modeling, 137–138
economic and mathematical model of, 146
Heaviside step function, 146
methodology of solving stochastic differential economic models, 146
random influences, 146
investment attractiveness, evaluation of
with constant investments, 147
criterion of evaluation of investment project, 144, 145
evaluation of risk, 145
initial decision, 144
with investments that grow by linear law, 148

with investments that grow by non-linear law, 148–149
necessary characteristics, 145
object of study, 144
profitability index, 147, 148, 149
strategies of additional investing, 144
strategies of investing, 146–147
value of profitability index, 145
main approaches, 131–132
commercial approach, 131, 132–133
organizational approach, 133
practice-oriented approach, 132, 133
process approach, 131, 132
personnel's effectiveness, modeling of evaluation of, 135–137, 139
starting the sales of a new product, modeling of, 134, 135, 138

Process approach of managerial decisions, 14–16
external business entities, 14–15
internal business entities, 14–15
managerial activities, 15
See also Russian gas distribution company, business process of
Production losses, model of
development of methodology, 171–174
causes of losses, 171–172
flow of value creation, 172–173
form of semantic network, 172
instrumental value of multilevel control, 175
situational analysis, 171
task of identifying losses, 171, 172–173
information capabilities and tools, 170–171
literature review, 170

Rationality of managerial decisions, 37
Russian car industry
competences, development of, 28
detalization of stages of managerial decisions, 29–30
management of production processes, 28
managerial decisions, 29, 30
analysis of parameters of production, 35
casting production, 33
complexity of business processes (Kbp), 31
effectiveness, 31
manageability (Kres), calculation, 31
optimal managerial decisions, development of, 30
process (Kpr), calculation, 31
resource capacity (k_p), calculation, 31
structural model of separate technological process, 33
sum of indicators of business processes, 32
technological preparation of production, 34
totality of indicators, calculation of, 31–32, 34

variants of solution, 30
operative decisions, 29
organizational structures, improvement of, 28
problem solving method, 28
production system, 28–29
processing of material flows, 29
strategic development, scenarios of, 27, 28
target principle of management, 29
determination and evaluation of situations, 29
forecasting of objective conditions, 29
goal setting stage, 29, 30
Russian gas distribution company, business process of, 14, 15
Balanced Scorecard (BSC), concept of, 25
business processes, 15–16
economic effectiveness, 18
effectiveness of process, 16
efficiency of decision making, 16
evaluation of effectiveness of process, 16–21
calculation of coefficient of efficiency of process, 24
customer satisfaction, 21
indicator of relative effectiveness, 20–21
indicators of effectiveness of sub-process, 21
level of achievement, 16–21
level of implementation, 18–20
methodology of, 16–21
Nintime calculation, 23
observation of methodological rules, 21
provision of execution of processes, 15–16
quality of produced technical conditions, 23
quantitative criteria, 20
rule of calculation of MCNGH, 23
speed of preparation of documents, 21, 23
stage of calculation of maximum consumption, 23
timeliness of transfer of information, 23
types and characteristic of indicators of effectiveness, 19–20, 22
order of technological connection, 16
peculiarities of decision making, 16
Performance Prism, concept of, 25
time of execution of stages of process, 16, 18
Total Performance Scorecard, concept of, 25
Russian practice of managerial decisions, 5, 6
advantages, 113
conceptual model, 7
advantages of, 8–9
alternatives to solving sub-problems, 8
analysis of corporate reports, 7–8

decision making, 8
disadvantages of, 9
formulation of determined problem, 8
reports, 8
solving a separate sub-problem, 8
solving debatable situations or uncertainty, 8
content analysis
peculiarities, 6, 7
scientific literature, drawback, 7
transformation of, 13
transparency of relations in business processes, 13
works of modern scholars, 6
Russia's economic system, 5–6

Sustainable development, 64
in Russia, 64

Technological connection, 16, 17

Volatility in business system and business environment, 115