Access control technology, 154
Advance Fit, 103
Agency for Management, Research and Innovation in Sports Services (AGIISD), 19
Amidio, 103
Ancillary services, 68
App BeOne, 20
App to Fit (gym management software), 103
Apple Pay app, 70
Apple Watch, 10, 25, 70
‘Apple Watch Connected’ programme, 70
Apple-grade technology, 8
Applications (apps), 23
Argentina, digital transformation in Covid-19 pandemic, 87
despair or conviction, 88–89
featured cases, 90–91
management and marketing technologies, 89–90
Megatlon Play case study, 91–92
overcoming prejudices, 88
social networks in Argentina, 90
statements, 90
Artificial intelligence (AI), 69, 119, 127
AI-driven customer chatbot, 105
AI-enabled connected fitness devices, 105
Artificial turf, 67
Associação Brasileira de Academias (ACAD) (see Brazilian Association of Gyms)
AtHome Workout, 116
Augmented reality (AR), 69, 119, 151
Australia case study, 115–116
digital transformation and innovation in customer management, 114–115
digital transformation and innovation in fitness centre management, 111–113
digital transformation and innovation in services and training, 113–114
fitness industry in, 111
Australian Sports Commission (ASC), 111
Basecamp Fitness, 70
BeatFit for Gym, 125
BeOne Fitness & Sport, 20–22
Bestcycling and Preva (Precor) software, 21
BH Fitness, 17
BHOUT Boxing Club, 27–28
Big data, 70, 127, 151
Big data analytics, 143
Blog, 146
‘Body Master’ (chain brands), 136
Body monitoring capacities, 154
Bodystreet, 10
Boutique fitness centres, 135–136
Brand and product, 12
Brazilian Association of Gyms, 82
Brazilian Council of Physical Education, 81
Brazilian fitness industry applications, 86
case study, 85–86
digital transformation and innovation in customer management, 84–85
digital transformation and innovation in fitness centre management, 82–83
digital transformation and innovation in services and training, 83–84
Business intelligence (BI), 68, 78
Business models  
24/7, 59, 61  
digital, 82  
Business R&D, 58

Cashless and contactless payment,  
108

CEAFI Gym, 91  
Cenesp Network, 81  
Center for Physical Activity Studies,  
91  
Chatbots, 138  
China fitness sector, digital  
transformation in, 127–130  
Citizen Assistance and Relief in  
Emergency Situation Fund,  
106  
Closed-circuit television surveillance  
cameras (CCTV  
surveillance cameras), 154

Cloud computing, 127  
Cloud-based SaaS, 68  
Club concept, 63  
Club management, 68  
digitisation of, 121  
Club Master, 103  
Clubware, 115  
Co-creation, value, 69  
Colour in BHOUT Boxing Club, 28  
Compound Annual Growth Rate  
(CAGR), 7  
Consumer behaviour, 23  
Consumer segmentation, 62  
Contact less Check-in Works, 108  
Contact-less appointment booking,  
108  
Content management, 78  
CoolBrands, 12  
COVID-19 pandemic impact on  
fitness sector, 151  
in Argentina, 87  
in Australia, 113  
in Brazil, 84  
in China, 129  
in Greece, 31, 35  
in Iran, 160  
in Japan, 120  
in Kenya, 151–152  
in Mexico, 74–75  
in Portugal, 23, 25  
in Saudi Arabia, 135  
in Turkey, 40–42  
in UK, 7  
Cross-cutting promotion, 138  
Cross-platform instant messaging, 59  
Crunch Fitness, 70–71  
Crunch mobile app, 71  
Custom-made gym management  
systems, 155  
Customer experience, 39  
Customer management  
in Australia, 114–115  
in Brazil, 84–85  
digital member journey, 11  
in Egypt, 146–147  
in Greece, 34–35  
growth of digital intermediaries, 12  
in India, 105–106  
in Iran, 161–162  
in Italy, 53–54  
in Japan, 122  
in Kenya, 155  
in Lithuanian, 60–63  
in Mexico, 76–77  
in Portugal, 26–27  
in Saudi Arabia, 138  
in Spain, 18–19  
in Turkey, 46, 47  
in UK, 11  
in United States, 69–70  
Customer relationship management  
(CRM), 78, 85, 114, 120, 136  
Customer support, 68  
Cyber space, 119  
Cyber-physical systems, 159  
DataHub project, 9  
Debit-success, 114  
Demographics, 137  
Digital Agency, 119  
Digital business model, 82  
Digital distribution, 13
‘Digital divide’, 7
Digital Economy and Society Index (DESI), 57
Digital fitness platforms, 31
*Digital Gym in the Post-Covid-19 Era*, 32
Digital health, 120
Digital media, 89–90
Digital online platforms, 157
Digital representation, 143
Digital revolution, 135
Digital skills, 57–58
Digital technology, 39–40, 111, 119, 127–128, 159
Digital transformation (DT), 7–8, 39, 119–120, 135, 143, 159
case study for DX and innovation of health and fitness club in Japan, 122–125
in fitness sector of China, 127–130
global vision of, 2
in health and fitness club management in Japan, 120–121
in Portugal fitness centre management, 24–25
in fitness sector, 2–3
Digital transformation in customer management
in Australia, 114–115
in Egypt, 146–147
in Greece, 34–35
in India, 105–106
in Iran, 161–162
in Italy, 53–54
in Japan, 122
in Kenya, 155
in Lithuanian, 60–63
in Mexico, 76–77
in Portugal, 26–27
in Saudi Arabia, 138
in Turkey, 46
in UK, 11–12
digitalisation in fitness sector, 1
Digital transformation in fitness centre management
in Australia, 111–113
in Egypt, 144–145
in Greece, 32–33
in India, 103–104
in Italy, 50–52
in Kenya, 152–154
in Lithuanian, 58–59
in Mexico, 74–75
in Saudi Arabia, 136–137
in Spain, 16–17
in Turkey, 44–45
in UK, 9
in Iran, 160
Digital transformation in service and training
centres of fitness clubs in Iran, 161
in Australia, 113–114
in Egypt, 145
in Greece, 33–34
in India, 104–105
in Italy, 52–53
in Japan, 121–122
in Kenya, 154
in Lithuanian, 59–60
in Mexico, 75–76
in Saudi Arabia, 137–138
in Spain, 17–18
in Turkey, 45–46
in UK, 9–11
Digitalisation, 39, 58–59, 111
in fitness sector, 1
and innovation awareness level in fitness centres in Turkey, 41–44
Digitally enabled UK Fitness sector
defining digital transformation, 7–8
digital transformation and innovation in customer management, 11–12
digital transformation and innovation in fitness centre management, 9
digital transformation and innovation in services and training, 9–11
doing different things, 8–9
Gymbox, UK, 12–13
UK National Digital Strategy, 7
Digitisation, 67, 127, 143, 154
of club management, 121
Direct debit subscription-based services, 114
Dream1, 98
DX (see Digital transformation (DT))
e-customer relationship management (eCRM), 102
e-Government Index, 58
e-sports, 31
Easy Gym Software, 103
Egym, 17
EGYM, 9, 10
Egypt, fitness digital transformation in applications, 148–149
case study, 147–148
digital transformation and innovation in customer management, 146–147
digital transformation and innovation in fitness centre management, 144–145
digital transformation and innovation in services and training, 145
sports institutions, 143–144
Electrical muscle stimulation (EMS), 10
‘End-to-end’ software platforms, 115
Enterprise resource management (ERM), 137
Enterprise resource planning (ERP), 78
Entrepreneur Magazine, 77
European Union (EU), 7
Exercise participation, 31
F45 model, 115–116
Face-to-face training, 10
Facebook, 31, 36, 54, 74, 105, 152, 155
Fantasy sport, 101
Fifth Generation Mobile Communications (5G), 58
Fit Club Center, 162–164
Fitbe App, 17
Fitbit, 10, 103
Fitbit Activity Trackers, 25
Fitclass.tv platform, 91
Fitcode, 103
Fitness applications, 23
Fitness centre management in Australia, 111–113
in Brazil, 82–83
in Egypt, 144–145
in Greece, 32–33
in India, 103–104
in Iran, 160
in Italy, 50–52
in Kenya, 152–154
in Lithuanian, 58–59
in Mexico, 74–75
in Saudi Arabia, 136–137
software, 47
in Spain, 16–17
in Turkey, 44–45
in UK, 9
in United States, 68–69
Fitness centres, 23
chains, 135
Fitness club apps, 10, 61
Fitness consumer, 107, 117
Fitness facilities, 9, 25, 68, 154–155
Fitness First, 114
Fitness Force, 103
Fitness industry in Turkey, 40
Fitness market, 81
Fitness Mobility, 103
Fitness sector, 1
digital transformation in, 2–3
digitalisation in fitness sector, 1
Fitness technology, 9, 23, 103, 105
‘Fitness Time’, 136
Fitness trackers, 153
FITTR network, 106
<table>
<thead>
<tr>
<th>Index</th>
<th>185</th>
</tr>
</thead>
</table>

Foreign direct investment (FDI), 135  
FÜRDI (women-only health and fitness studio), 121

Gaming in BHOUT Boxing Club, 28  
Gen-Z, 100  
Give away competitions, 36  
Global marketplace, 159, 161  
Going Green initiatives, 68  
Gold’s Gym case study, 147–148  
Google Ads campaign, 36, 105  
Google Meet, 152, 157  
Google Pay, 59  
GPS tracking devices, 153  
Greece  
applications, 36–37  
case study, 35–36  
COVID-19 impact on fitness sector, 32  
digital transformation and innovation in customer management, 34–35  
digital transformation and innovation in fitness centre management, 32–33  
digital transformation and innovation in services and training, 33–34  
‘GYM DX’ service, 122  
Gym ERP, 103  
Gym management in Argentina, 89–90  
software, 103  
Gym Master, 103  
Gym Masters Management System (GMMS), 156  
Gym Vale, 103  
Gymbox, UK, 12  
brand and product, 12  
coronavirus pandemic, 12  
digital distribution, 13  
growth and future, 13  
Gymseshiya, 103  
Gyminabox.gr, 36  
GymMaster, 115  
Gympass service, 82  
Gympik (Indian-origin fitness chain), 106–108  
Hawk-Eye technology, 67  
Health and fitness club in Japan case study for DX and innovation of, 122  
digital transformation and innovation in health and fitness club management, 120–121  
holding online live lessons using ‘Zoom’, 122, 125  
providing ‘online fitness programmes’ using ‘apps’, 125  
providing ‘programmes’ using ‘apps’, 125  
providing exercise/workout through app, 124  
providing online lessons, 123  
Health and Productivity Management (H & PM), 126  
Health clubs, 23  
memberships in United States, 68  
Health protocols, 137  
Health-oriented fitness programmes, 104–105  
Heating, ventilation and air conditioning (HVAC), 130  
Heliopolis Sports Club, 147–148  
Hockey India League, 98  
Hotels and country clubs fitness centres, 136  
Image, 153, 156  
Immersive simulators, 18  
InBody, 18  
Independent fitness centres, 135  
Indian fitness industry applications, 108–109  
case study, 106–108  
category preference of Indian fitness sector, 102
digital transformation and innovation in customer management, 105–106

digital transformation and innovation in fitness centre management, 103–104

digital transformation and innovation in services and training, 104–105

dominating sports in fantasy sports sector, 101
growth of gamification industry in India, 100
Indian Sports Ecosystem, 99
Indian sports sector market, 97–98
wearable fitness technology, 103

Indian Patent Act (1970), 100
Indian Premier League (IPL), 98
Indian sports sector, 97
Indian Super League (ISL), 98
Influencer marketing, 155, 157

Information and Communication Technologies (ICT), 75, 120
Information Technology (IT), 120

Innline, 41

Innovation, 39, 98–99, 120

awareness level in fitness centres in Turkey, 41–44
in health and fitness club management in Japan, 120–121
in Portugal fitness centre management, 24–25
toolkits, 77

Innovation in customer management
in Australia, 114–115
in Egypt, 146–147
in Greece, 34–35
in India, 105–106
in Italy, 53–54
in Japan, 122
in Kenya, 155
in Lithuanian, 60–63
in Mexico, 76–77
in Portugal, 26–27
in Saudi Arabia, 138

in Turkey, 46
in UK, 11–12

Innovation in fitness centre management
in Australia, 111–113
in Egypt, 144–145
in Greece, 32–33
in India, 103–104
in Italy, 50–52
in Kenya, 152–154
in Lithuanian, 58–59
in Mexico, 74–75
in Saudi Arabia, 136–137
in Spain, 16–17
in Turkey, 44–45
in UK, 9

Innovation in services and training
in Australia, 113–114
in Egypt, 145
in Greece, 33–34
in India, 104–105
in Italy, 52–53
in Japan, 121–122
in Kenya, 154
in Lithuanian, 59–60
in Mexico, 75–76
in Saudi Arabia, 137–138
in Turkey, 45–46
in UK, 9–11

Instagram, 36, 54, 74, 105, 152, 155
Instant Messaging software (IM software), 138
Instructor-led training, 10
Intelligent management, 130
Intelligent shower control system, 47
International Fitness Observatory (IFO), 49
International Health Racquet & Sportsclub Association (IHRSA), 15, 73–74
Internet, 15
Internet of Things (IoT), 69
‘iPad’, 121
Iranian fitness centres
applications, 164
case study, 162–164
DT in customer management, 161–162
DT in fitness centres management, 160
DT in service and training centres of fitness clubs, 161
Italy, fitness sector in
applications, 55–56
case study, 54–55
digital transformation and
innovation in customer management, 53–54
digital transformation and
innovation in fitness centre management, 50–52
digital transformation and
innovation in services and training, 52–53
sports sector and fitness clubs, 49
Japan, fitness sector in
case study for DX and innovation of health and fitness club in Japan, 122–125
digital transformation and
innovation in customer management, 122
digital transformation and
innovation in health and fitness club management, 120–121
digital transformation and
innovation in services and training, 121–122
economic damage due to COVID-19 in, 119
managerial applications, 126
Jivine (gym management software), 103
Kenya, fitness sector in
applications, 157
COVID-19 pandemic, 151–152
digital transformation and
innovation in customer management, 155
digital transformation and
innovation in fitness centre management, 152–154
digital transformation and
innovation in services and training, 154
VMX Fitness Centre Nairobi, 156
Keyword search, 155
KOOH Sports, 98
Leejam Sports Company, 139–140
‘Lefit LIVE’, 128
‘Lefit Training’, 128
Les Cinq Gym, 85–86
Les Mills, 16, 18, 25–26, 70
Les Mills on demand service, 25
Letsfit example, 46
employee, 46
marketing, 48
service, 48
technology, 48
Life Fitness LF Connect, 9
LifeFitness, 17
Lights in BHOUT Boxing Club, 28
Lithuanian fitness centres
applications, 64
case study, 63–64
digital transformation and
innovation in customer management, 60–63
digital transformation and
innovation in fitness centre management, 58–59
digital transformation and
innovation in services and training, 59–60
SPRINTER analysis, 57
Lithuanian Industry Digitisation Roadmap, 58
Live online fitness programmes, 34
Live training, 61
Low cost fitness centres, 136
Loyalty, 2, 17–18, 21–22, 26, 33, 54–55, 70, 74, 83–84, 103, 106, 139, 153, 155, 162–163
Management, 31
Marketing, 31
technologies in Argentina, 89–90
Matrix, 17
Meet platform, 87
Megatlon Play case study, 91–92
Member Planet, 103
Member service, 68
Membership tracking and billing software, 136
Mercado Fitness, 88
Messenger, 59
Mexican Association of Gyms and Clubs (AMEGYC), 75
Mexico
applications, 78
digital transformation and innovation in customer management, 76–77
digital transformation and innovation in fitness centre management, 74–75
digital transformation and innovation in services and training, 75–76
fitness industry in, 74
sports, 73
Microsoft Teams, 157
Mobile biometric technology, 69
Mobile marketing, 105
Moovfitness.gr, 36
Motionsoft, 68
#MovementForMovement campaign, 106
Music in BHOUT Boxing Club, 28
MyClub TV, 18
myHut, 26
Mymoov.gr, 36
MyVitale, 17
MyWellness, 17
Myzone, 25
NAFES, 135, 141
National Health Strategy, 58
National Progress Plan, 58
O2O e-commerce model, 128
Occupancy of lockers/clubs at a particular time, 61
Okfit (gym management software), 103
On-demand video streaming service, 23, 25–26, 71
Online fitness class, 87
programmes using ‘apps’, 125
Online self-service, 61
Online service provision, 154
Online/virtual training, 61
OnVirtualGym, 26
Opt Fit Corp, 122
Orange Theory, 70
Paid live virtual sessions, 34
Pandemic Covid-19, 24
Payment types, 59
Paypal, 59
Peloton Interactive, Inc., 8–9
Perceived quality, 23
Perceived value, 23
Personal training (PT), 138
Personalisation of service, 21
Physical activity, 8–9, 15–16, 18,
20–22, 25, 27, 29, 46, 56,
74, 82, 91, 117, 144, 154
Physical club space, 49
Physical education, 81
Physical space, 119
Pixformance, 121
Point of Sale (POS), 137
Polar, 25
Portugal fitness centres
applications, 29
consumer behaviour, 23
digital transformation and innovation in customer management, 26–27
digital transformation and innovation in fitness centre management, 24–25
digital transformation and innovation in services and training, 25–26
impact of Pandemic Covid-19, 24
Portuguese Boutique de Fitness, 27–28
Power BI software, 20, 21
Prama de Pavigym, 18
Precor, 17
Premier Badminton League (PBL), 98
Pro Kabaddi League, 98
Process digitization, 59
‘Programmes’ using ‘apps, 125
Promotion, 31, 36–37, 84
apps with, 15
cross-cutting, 138
of food and sport health, 163
health, 126
management of, 52
messages, 155
operations, 53
of physical activity, 16
of services, 62
through social media, 34, 138
ProviSport software, 20
Psychographics, 137
Public–private partnership (PPP), 20
Pulse TRAKK, 9

QR code, 108
access control, 77
function, 25
for introductory program, 61
scan by phone, 128

Recycling, 35
Regybox, 26
‘Remote Coach’ app, 10
Research Group on Management and Innovation in Sports Services, Leisure and Recreation (GISDOR), 19
Reservation management systems, 120
Robotics, 151
Running Virtual, 81

Satisfaction, 23, 24–28
customers, 33, 56, 84, 140
objectives of, 77

Saudi Arabia’s fitness industry
applications, 140–141
case study, 139–140
digital revolution, 135
digital transformation and innovation in customer management, 138
digital transformation and innovation in fitness centre management, 136–137
digital transformation and innovation in services and training, 137–138
Self-service exercise, 128
Sensor technology, 143
Service and training
in Australia, 113–114
in Brazil, 83–84
centres of fitness clubs in Iran, 161
in Egypt, 145
in Greece, 33–34
in India, 104–105
in Italy, 52–53
in Japan, 121–122
in Kenya, 154
in Lithuanian, 59–60
in Mexico, 75–76
in Portugal, 25–26
in Saudi Arabia, 137–138
in Spain, 17–18
in Turkey, 45–46
in United States, 69
SGA (Warehouse Management Software), 78

Short message services (SMSs), 153
Single sign-on (SSO), 71
Skype, 152, 154, 157
Slack platform, 59
Sleep monitors, 153
Smart cabinet locks, 47
Smart Fit, 76
Smart towel control system, 47
Smart turnstile, 47
Smartphone, 15, 121
Smartwatches, 153
Index

Social, Mobile, Analytics, Cloud Computing e Internet of Things (SMACIT), 83
Social CRMs, 105–106
Social distancing, 105
Social media, 23, 31, 34, 74, 143, 146, 151, 152, 156
marketing, 105
payment advertising, 36
service, 23
Social networks in Argentina, 90
‘Society 5. 0’, 119
Software as a Service (SaaS), 68
Somatosensory technology, 127
SoulCycle, 70
Spanish fitness industry
applications, 21–22
case study, 19–21
digital transformation and innovation in customer management, 18–19
digital transformation and innovation in fitness centre management, 16–17
digital transformation and innovation in services and training, 17–18
Specialist fitness centres, 136
Sport App
Sport case study, 77–78
Gold’s Gym, 147–148
HOLIDAY SPORTS CLUB, 122, 125
Leejam Sports Company, 139–140
Portuguese Boutique de Fitness, 27–28
TOKYU SPORTS OASIS, 125
VS-Fitness/VS-Express 24/7, 63–64
Sport clubs, 135, 159, 160
Sport consumer, 69
Sport management, 31
Sport organisations, 159
Sports, 73
Sports businesses, 97
Sports industry, 39
Sports innovation, 73
Sports technical staff, 49
Sports365, 98
SportzVillage, 98
State Education Strategy, 58
State-of-the-art payment processing system, 68
SunPig APP, 129
Super digitisation process, elements of, 19
Supplementary business management software, 137
Surveillance, 154
Sustainable Society Index, 58
Synq. fit, 105
Tanita, 18
Technogym, 41
Technogym mywellness, 9–10
Technological advancements, 67
Technological developments, 39
Technological innovations, 126, 159
services, 23
Technology, 15, 18, 23
in Greek sports, 31
technology-enabled training services, 137
technology-enhanced fitness, 40
Technology in Sport Project, 111
Telegram, 138
Telegram Bot, 138
Tendenci, 103
The Trip (immersive simulator), 18
Thessaloniki, 36
Tik Tok, 54, 105
Traditional body measurement methods, 156
Traditional marketing methods, 155
Training management software, 17
Trainingym, 17, 20, 26
Transformation of digitization, 127
Traqade, 107–108
Turkey
applications, 48
case study, 46
digital technologies in, 39–40
digital transformation and innovation in customer management, 46, 47

digital transformation and innovation in fitness centre management, 44–45

digital transformation and innovation in services and training, 45–46

digitalisation and innovation awareness level in fitness centres in, 41–44

employee, 46

Letsfit example, 46
technology, 48

24/7 business model, 59, 61

Twitter, 31, 54

Uber, 111

United States, digital fitness industry in case study, 70–71
customer management, 69–70

fitness centre management, 68–69

health club memberships in United States, 68

services and training, 69

Viber, 59

Video conferencing applications, 154

Videos of customer testimonials, 146

Vimeo platform, 87

Virtual classes, 25

Virtual Grand Prix Series, 151–152

Virtual group classes, 69

Virtual personal trainer software, 45

Virtual reality (VR), 119, 127, 151

Virtual training, 108

VMX Fitness Centre Nairobi, 156

Voice over IP (VoIP), 59

VS-Fitness/VS-Express 24/7, 63–64

Wearable devices, 69

Wearable fitness technologies (WFT), 23, 25

Wearable technology, 31, 143, 153, 161

Web conferencing tools, 152

‘WEBGYM’, 125

WhatsApp, 59, 138

WhatsApp Business API, 138

Wild Training, 10

Xercise4Less low-cost gym business app, 10

YDL Gym Management, 103

YMCA Twin Cities, 70

YouTube, 34, 54, 87, 152

Zen Planner, 115

Zenbership, 103

Zoom, 36, 87, 152, 154, 157

holding online live lessons using, 122, 125