Index

Agricultural revolution, 59–60 Air transportation, 143 Airbus, 152 Airline companies, 148 Airline mobile applications, 148 AliveCor's algorithm, 95–96 Altruism, 104 Amadeus system, 147-148 American Boeing, 152 Apollo, 147-148 Application programming interface (API), 25-26 Artificial intelligence (AI), 2, 5–6, 20, 27, 62, 79, 87, 131, 142–143, 146 using areas for, 91-92 difficulties and limitations, 96-98 in digital technologies, 94 FDA-approved algorithms, 94–96 in healthcare management, 89-98 opportunities, 95 platforms and applications, 91-92 tools, 92-94 Augmented reality (AR), 2, 6, 60, 142-143, 147 Automation, 2, 33, 62 Average variance extracted value (AVE value), 187 Aviation digital transformation and, 143-147 and future, 151-152 industry, 143 Aviation 4.0, 152 Aviation Today website, 152 Baby Boomer Generation, 39 Behavioural analyses, 144 Behavioural intentions, 158, 178 - 179

Bibliometric analysis regarding digitalization on social entrepreneurship, 9-12 Big data, 88, 132, 142-145 analysis, 60 analytics, 79 Biometrics, 145-146 Biotechnologies, 131 Bitcoin (BTC), 21-22 Blockchains, 2, 20-23 Boeing, 152 Bring your own device (BYOD), 26 Buğday Ekolojik Yaşamı Destekleme Association, 121 Businesses, 2, 27 life, 61 model, 151 Cabin cleaning robots, 150 Cameralism, 48 Capital Market Law, 122 Career concerns, 103 conceptual background, 108 empirical literature, 111-112 hypothesized model, 112-113 theoretical framework, 108-110 Cell phones, 39 Central Reservation Systems (CRS), 147 - 148Changes, 60-61 Check-in processes, 148-149 CIGA, 147 Civic virtue, 104-105 Cloud computing, 25–26, 60, 132, 142 - 143Cloud services, 20 Cloud technology, 132 Cloud-based storage, 26 Clustering method, 89

Coefficient of determination, 190 Collectivist culture, 163-164, 180-181 Commercial entrepreneurs, 121 Communication services, 26 Complementary congruence, 110 Complementary fit, 110 Compliance, 62 Composite reliability (CR), 166 Compulsory citizenship behaviours, 105-106 Computers, 39 Conscientiousness, 104 Consumer personal data, 91 Content validity, 184, 187 Conventional algorithms, 94 Convergent validities, 184 Coronavirus epidemic in 2019 (COVID-19), 97–98 Cost-expenditure comparisons, 144 Courtesy, 104 Credit cards, 119–120 Cronbach's alpha, 166 Cross-validation, 89 Crowdcube.com equity-based crowdfunding platform, 123 Crowdfunding, 119-120, 122, 124 impact of digitalization on social entrepreneurship in facilitating, 124–125 types, 122-124 Crypto, 21-23 Cryptocurrency, 21–23 Crystal Generation, 36 Customer satisfaction risk, 80 Customer-oriented management, 48-49 Cyber security, 142–143 Cyber-physical production systems (CPPS), 131-132 Cyber-physical systems (CPS), 131–132, 142–143 Cyber-security risks, 80-81 Dark factories, 131 Debit cards, 119–120

Debt-based crowdfunding, 123

Decision trees, 89 Deep learning methods, 89 Descriptive norms, 181–182 Developed countries, 164 Diatech, 125 Digital, 33 Digital applications, 148 Digital baggage cards, 149 Digital cabin management systems, 149 Digital competencies, 32 Digital disruption, 90 Digital Generation, 36, 41 Digital loyalty programmes, 150 Digital payment system, 119–120 Digital platforms, 6 Digital products and services, 119-120 Digital Public Administration, 49–51 voters and politicians in, 51–54 Digital revolution, 2, 90 Digital social entrepreneurship (DSE), 3, 8 emergence of, 8-9 Digital solutions, 90 Digital technologies, 4-6, 9, 20, 32, 37-38, 61, 96-97, 142-143 Digital tools, 50 Digital transformation (DT), 6-7, 32, 34-35, 49-50, 61, 78, 89, 129-130, 142 advantages, 151 using areas for, 91–92 and aviation, 143-147 in healthcare management, 89–98 projects and initiatives, 47–48 Digital twin, 132 applications in aviation, 145 Digital work environment, 34 Digitalization, 2-3, 5-6, 8, 20, 32, 50, 61, 75–76, 119, 129–130, 142 in airline services, 147-150 data analysis, 21-27 impact of digitalization on social entrepreneurship in facilitating crowdfunding, 124-125

effects of digitalization on stakeholders in management process of businesses, 64-66 effects of digitalization on stakeholders in production process of enterprises, 66-68 flow of research methodology, 21 general perceptions of businesses, 63 Generation Z, 33-35 impact on social enterprises, 6-12 methodology, 20-21 in operations, 76 possible changes expected in working life and professions with. 69-70 on social entrepreneurship, 10-11 stakeholders of businesses in economic and social process of digitalization effects, 68-69 Digitization, 20-21, 33, 102, 119-120, 142 Disappearing jobs, 78 Discriminant validities, 184, 187 Donation-based crowdfunding, 122 - 123DVD players, 39 Dystopia, 76 industry 4.0 with internal and external partners in operations, 76-81 E-banking adoption research, 178 literature review, 179-184 methodology, 184 results, 184-191 E-government, 50 e-Health, 97 E-leadership, 77–78 Electronic health records (EHRs), 91, 97 Empirical studies, 7 Ensemble models, 89 Enterprises, 3 Entrepreneurs, 3–5

Entrepreneurship (*see also* Social entrepreneurship), 2–3, 120 Entrepreneurship financing, 120 impact of digitalization on social entrepreneurship in facilitating crowdfunding, 124–125 theoretical background and literature, 120–124 Equity-based crowdfunding, 123 Error analyses, 144 External partners, 76 effects to, 79–81 Extreme Gradient Boosting (XGBoost), 89

Facebook Prophet, 89 FANUC Fabrikası, 134–135 FDA-approved algorithms, 94–96 Financial factors, 78–79 Financial industry, 5–6, 119–120 FireEye, 80–81 'Flying Car: Vahana' project, 152 Fourth industrial revolution (*see* Industry 4.0 (I4.0))

Galileo system, 147-148 General Electric, 136 Generation Y, 32 Generation Z, 32, 36, 43 advantages of digitalization to, 38 - 41digitalization, 33-35 disadvantages of digitalization to, 41 - 43Generations, 35-43 Global Crypto Adoption Index (2021), 23 - 24Global Distribution System (GDS), 147 - 148Google DeepMind Health Project, 91 Google Glass, 147 Google's DeepBlue Artificial Intelligence, 87-88

Health 4.0 period, 96

Health 5.0 period, 96 obstacles, 98 Healthcare 1.0, 97 Healthcare 2.0, 97 Healthcare 5.0, 96-97 Healthcare management, AI and DT in, 89–98 Healthcare services, 89 Hemşin Yaşam Production and Business Cooperative, 124-125 Hemşin Yaşam Üretim ve İşletme Cooperative, 121 Historical analyses, 144 Horizontal integration, 132-133 Human resources, 77-78 Hyper-connectivity, 102 Hypothesis development, 182-184 I-Generation (i-Gen), 36 IBM's AlphaGo, 87-88 IGA Istanbul Airport, 147 Individual item reliability, 184 Industrial revolutions, 60, 130 Industry 1.0, 60 Industry 2.0, 60 Industry 3.0, 60 Industry 4, 76 Industry 4.0 (I4.0), 60, 90, 129-130, 133, 136, 142 effects to external partners, 79-81 effects to internal partners, 77-79 with internal and external partners in operations, 76-81 Industry stakeholders, 144 Inflight entertainment systems, 150 Information and communication technologies (ICTs), 2, 102-103, 112-113 Information system (IS), 158 Information technology (IT), 158 Infrastructure as a Service (IaaS), 25 - 26Initial coin offerings, 119-120 Injunctive norm, 181-182 Innovation, 4-5

Insurtech firms, 119–120 Intelligent automation, 62 Internal consistency reliability, 184 Internal partners, 76 effects to, 77–79 Internalization, 183 International Civil Aviation Organization (ICAO), 144 Internet of medical things (IoMT), 96–97 Internet of things (IoT), 5–6, 60, 96–97, 131, 142–143, 146 iPods, 39

KAMER, 121 Kiva, 123 KLM Airlines, 146 Korean Airlines, 146

Legal Tech, 5–6 Lights out manufacturing, 78 Lilium, 152 Linear regression, 89 Logistic regression, 89 Long Short-Term Memory (LSTM), 89 Loyalty programmes, 150

Machine learning, 62, 88 types, 88–89 Management strategies, 143 Memory, 89 Ministry of Science, Industry and Technology (MoSIT), 135 Mobile commerce (M-commerce), 158, 162–163 Mobile information system, 158–159 Mobile internet, 5–6 Mobile phones, 159 Mobile technologies, 32 Modern workforce, 62 Monopolisation risk, 81 MP3 players, 39

Nano Technology Children (see Generation Z) Nanotechnologies, 131 Narrow AI. 87-88 National Performance Evaluation, 50 Nestle, 25 New Public Administration Movement, 48–49 New Public Management (NPM), 48 New Public Service, 48 New Silent Generation, The, 36 New Social Media, 51-54 Next Generation, 36, 40 Non-profit enterprises, 124 Online check-in and boarding services, 148 - 149'Online Generation' (Instant Online), 36 Organizational citizenship behaviour (OCB), 102 and components, 105 conceptual background, 103-106 and dimensions, 104-106 empirical literature, 111-112 hypothesized model, 112-113 theoretical framework, 108-110 Oxford English Dictionary (OED), 33 Partial Least Square Structural Equation Modelling (PLS-SEM), 165-166, 184 Partners, 76 Passenger Air Vehicle (PAV), 152 Pebble, 124 'Pegasus' 'Bol Points' programme, 150 Perceived ease of use, 178-179 Perceived usefulness, 161, 178-179, 182 - 183Personal descriptive norms, 181–182 Personal injunctive norms, 163, 181 - 182Personality traits, 4-5 Person-environment fit theory (PE fit theory), 110 Pokemon Go (game), 6 Portable devices, 159 Predictive relevance, 190

Primary appraisal level, 109 Principal component analysis, 89 Product preference, 80 Professionals, 102-103 Public administration, 47-48 digital transformation in, 47-48 literature review and theoretical background, 48-54 Public Administration 1.0, 48 Public Administration 2.0, 48 Public Administration 3.0, 48–49 Public Administration 4.0, 49–51 Public Administration 5.0, 51 Public policy-making, 50 Public service delivery, 50 Public services, 49-50

Q² value, 190

Random forests, 89 Reassessment level, 109 Reinforcement learning (RL), 89 Research and development (R&D), 76, 79 Rewards-based crowdfunding, 123 - 124Risk, 7, 62 Robot technology, 146 Robotic process automation (RPA), 67 Robotics, 131, 146 Robotization, 2 Saber, 147–148 Schneider Electric Manisa Factory (SEMF), 136 Secondary assessment level, 109 Sector Prioritization Model, 135 Self-configuration production ecosystems, 130 Self-healing production ecosystems, 130 Self-monitoring production

ecosystems, 130

Service delivery, 47

Siemens, 92

Siemens Amberg Digital Factory, 134

Silent Generation, 36, 39 Simulation, 132, 142–143 Small Air Transport, 152 Smart Factories, 60, 131, 133 advantages, 133 components, 131-133 examples, 134-136 industry 4.0 and smart factories applications, 133–136 researches in context of smart factories in Turkey, 135–136 studies in context of smart factories in world, 133–135 Smart Manufacturing, 5-6 Smart robots, 142-143 Social enterprises, 2-4 impact of digitalization on social enterprises, 6-12 Social entrepreneurs, 2, 5, 7, 20, 121 Social entrepreneurship, 2-3, 5, 20, 120, 122 digitalization and technological advancement, 5-6 impact of digitalization on social enterprises, 6-12 impact of digitalization on social entrepreneurship in facilitating crowdfunding, 124 - 125innovation and entrepreneurs, 4–5 Social exchange theory, 108–109 Social impact, 160 Social influence, 179 Social innovation, 5 Social media, 52–53 Social networks, 37 Social standards, 159 Societal norms, 182 Software as a Service (SaaS), 25 - 26Sony Smartwatches, 147 South Africa, 102 Space, 131 Spencer robot, 146 Sportsmanship, 104 Stakeholders

of businesses in economic and social process of digitalization effects, 68-69 effects of digitalization on stakeholders in management process of businesses, 64-66 effects of digitalization on stakeholders in production process of enterprises, 66-68 Stone-Geisser's predictive relevance test, 190-191 Strategy, 61–62 Stress, 106 Structural model, 187-190 Subjective norms, 162–163, 178–179 Super Smart Society, 51 Supervised learning, 88-89 Supplemental fit, 110 Supplementary congruence, 110 Support vector machines, 89 Sustainability, 8 Targeted malware, 80-81 Tax loss, 81 Techno-complexity, 107 Techno-insecurity, 107 Techno-invasion. 107 Techno-overload, 107 Techno-uncertainty, 107 Technological advancement, 5-6 Technological developments, 60-61 Technological devices, 37-38 Technology, 2, 32, 102 Technology acceptance model (TAM), 160, 178–179 hypothesis development, 164-165

literature review, 160–165 methodology, 165–166

results, 166–173

TAM2, 160, 179 Technology adoption study, 159 Technostress, 103 and components, 107 conceptual background, 106–107 and dimensions, 107 empirical literature, 111–112

hypothesized model, 112-113 theoretical framework, 108-110 Telehealth, 97 Telemedicine, 5-6 Tesla, 151 Thailand, 158-159, 163-164, 180-181 Theory of Planned Behaviour (TPB), 178 Theory of Reasoned Action (TRA), 178 3D printers, 131 printing, 142-143 Transaction-based model of stress, 109-110 Transformation (see also Digital transformation (DT)), 49-50, 60-61 obligation of forming new models in, 79 Trust, 51 TÜBİTAK, 135 'Turkish Airlines' 'Miles & Smiles' programme, 150 Tyson Foods, 25

Uber, 151 Uniform subjective norms, 163 Unilever, 25 Unsupervised learning, 89 Urban Air Mobility (UAM), 152

Value management, 61–62 Vestel Group of Companies, 136 Virtual reality (VR), 2, 6, 142–143, 147 Virtual team leadership, 77–78 Vocation fit, 110

Walmart, 25 Wearable technology, 147 Web 1.0, 52 Web 2.0, 52 Web 3.0, 52 Weberian bureaucracy, 48 WeWalk, 124 Workplace technostress, 106–107 World GoFundMe, 123

Xiaomi Smart Factory, 134

Zorgprisma Publiek, 91