Index

Amazon, 35 Applications of AI in tourism and hospitality industry, 36 Artificial Intelligence (AI), 32-33, 35, 47-48, 82-83, 120, 122-123, 135 AI-based chatbots, 38 AI-based forecasting system, 38 AI-driven prediction tools, 36 AI-enhanced hotel, 36 applications in sectors, 35 applications of AI and robotics in global tourism industry, 38-39 applications of AI in tourism and hospitality industry, 36 assistants, 36 challenges to adopt AI in Indian tourism industry, 40 challenges to adopt AI-based applications in tourism industry, 36-37 components of, 34-35 facial recognition, 39 findings of study, 38-40 future possibilities of AI applications in tourism industry, 39-40 literature review, 33-37 real-time feedback, 39 research methodology, 37-38 smart forecasting, 38 Artificial Intelligence for Drug Discovery (AIDD), 35 Asian Development Bank (ADB), 143 Augmented reality (AR). (see also Virtual reality (VR)), 51, 87, 96, 99, 124-125, 127-128, 135

adoptability of AR in hospitality industry, 101 in hotel industry, 97-98 Authenticity, re-creation of, 126 Average Variance Extracted (AVE), 8 B-Chabot marketing, 128 Bangladesh, 2-3 residents of, 5 Banking and Financial Services sector, 35 Big Data (BD), 45–46, 51–52, 121, 134-136, 141-142 analytics, 46, 139-140 big data in sustainable tourism, 50-52 data collection and scope of research. 53 findings, 56 industry 4.0 and, 47-48 institutions promoting big data for sustainable development, 142 - 144limitations and future research, 74 location-aware technologies, 51 method, 52-55 practical implications, 73 resources, 50 rise of big data in tourism sector, 138 selection of articles and analysis process, 53-55 sustainable management with big data, 48-50 technology, 45-46 theoretical background, 47-52 transactions, 50-51 Block chain, 123 Brundtland Report, 110

Business, 50 process, 40 Business and leisure guests in hotel industry, 100 Business intelligence (BI), 50 Central Government's Destination Management Organisation, 111 Chat robot (Chatbot), 36, 38, 122 China's economy, 21 Cloud computing, 51, 123–124 Cloud-based technologies, 124 Cobb-Douglas function, 21 Collaboration platform, 114 Common method bias (CMB), 6-7 Composite Reliability (CR), 8 Computers, 87 Conceptual research, 136 Construct reliability and validity, 8 Correlation analysis, 24-25 COVID-19 pandemic, 84-85, 87, 108 - 109virus, 40 Cronbach's Alpha (Ca), 8 Cutting-edge technologies, 107–108 Cyber-physical systems (CPS), 135 Data, 50-51 exhaust, 135 mining, 35 Data science, 134-136, 141-142 institutions promoting data science for sustainable development, 142 - 144Decision-making process, 48 Destination management organisations (DMOs), 108–109, 140–141 Destination management systems (DMS), 82-83 Destinations marketing, 84 Digital learning system, 35-36 Digital technologies, 107, 133–134, 142 - 143Digitalisation, 138–139

Discriminant validity, 8-9 E-commerce applications, 82-83 giants, 35 e-Marketing, 96 East Asia, 19–20 Economic growth, effect of tourism and technological contribution on correlation analysis, 24-25 data collection and methodology, 23 - 24descriptive statistics, 24 literature review, 21-23 regression equation, 24 regression results, 24-25, 28 technological contribution and economic growth, 21–22 tourism and economic growth, 22 - 23Economic interdependence, 20 Eco-tourist destination. 5 assessment of structural model, 9-11 construct reliability and validity, data analysis and results, 8-11 discriminant validity, 8-9 implications, limitations, 11–12 literature review and hypotheses development, 3-5 methodology, 5-7 tourists visit intention, 3 Vlogger attractiveness, 4 - 5Vlogger credibility, 3 Vlogger expertise, 4 Vlogger trustworthiness, 3 - 4Education. 35-36 Electronic word-of-mouth (e-WOM), 127 European Tourism Indicators System (ETIS), 143–144 Expertise, 4

Extended reality (XR), 87 Facial recognition technologies, 39 Feasible least squares (FGLS), 20 Financial development, 23-24 Flipkart, 35 Forecasting, 46–47 software. 82-83 Fornell and Larcker Criterion (FL criterion), 8-9 Fourth Industrial Revolution, The, 47 Futuristic perspective of AI AI-based chatbots, 38 applications in sectors, 35 applications of AI and robotics in global tourism industry, 38-39 applications of AI in tourism and hospitality industry, 36 challenges to adopt AI in Indian tourism industry, 40 challenges to adopt AI-based applications in tourism industry, 36-37 components of, 34-35 facial recognition, 39 findings of study, 38-40 future possibilities of AI applications in tourism industry, 39-40 literature review, 33-37 overview of, 33-35 real-time feedback, 39 research methodology, 37-38 smart forecasting, 38 Geographic information systems (GIS), 82-83 Global tourism industry, current applications of AI and robotics in. 38-39

GMM method, 22–23 Government organisations, 140–141 Green Economy Report, The, 81–82 Grounded theory approach, 137-138 Growth, positive effects of tourism on, 20 Growth decomposition method (GDM), 23 Healthcare industry, 35 Heterotrait-Monotrait Ratio of Correlations (HTMT), 8-9 High-performance computing (HPC), 123 - 124Hilton Hotel Group, 109-110 Hopper (AI-driven prediction tools), 36 Hospitality, 2 adoptability of AR and VR in hospitality industry, 101 applications of AI in hospitality industry, 36 sectors, 101 Hotel industry, 96–97 AR and VR in, 97–98 mobile technology trends in, 99 Hotel sales, influence of technology on, 99-100 business and leisure guests in hotel industry, 100 Hotels.com, 139-140

I4.0. see Industry 4.0
Indian tourism industry, challenges to adopt AI in, 40
Industrial Revolution 4.0 (IR 4.0), 127–128, 133–134, 136
B-Chabot marketing, 128
future directions for research, 128–129
influencer marketing, 128
intervention of IR 4.0 in service points, 125–126
marketing automation, 128
social selling, 128
Industry 4.0 (I4.0), 45–48, 107–108, 120, 135–136

immersion in tourism services, 125-126 technologies, 46, 49-50 Industry stakeholders, 120 Influencer marketing, 128 Information and communication technologies (ICT), 106, 135 Institutions promoting big data and data science for sustainable development, 142-144 Intelligence centre, 112-113 International Network of Sustainable **Tourism Observatories** (INSTO), 143-144 International tourism, 22 Internet, 133-134 systems, 135 Internet of thing (IoT), 51, 82-83, 99, 120-121, 135 LAB turisme Barcelona, 143-144 Language, 34-35 Learning, 34–36 process, 20, 26 Local tourism hub, 113

Marketing automation, 128 Marriott Hotel Group, The, 109-110 Mental process, 3 Metaverse, 108-110 exploring metaverse by destinations towards sustainability, 110 exploring metaverse towards tourism sustainability, 110–114 ongoing metaverse experiments in tourism destinations. 109 - 110Mixed virtual reality (MR), 87 Mobile phones, 87 Mobile technology trends in hotel industry, 99 use of, 98-99

National statistical systems (NSSs), 143

National tourism hub, 113 Natural resources, 46 Net Zero Emissions, 142–143 Network mapping, 53–55 Non-probability sampling techniques, 5–6 NTO, 140–141 NuMedii, 35

Online databases, 37–38 Online food communities, 72 Online reservation data, 50–51

Pandemic, 120 Panel-corrected standard errors (PCSE), 26 Perception, 34–35 Platform-as-a-service (PaaS), 123–124 Post-pandemic tourism, 128–129 Preliminary analysis, 55 Problem-solving, 34

Real-time data tracking, 45-46 Real-time feedback, 39 Reasoning concept, 34 Regression equation, 24 Regression results, 24-25, 28 'Remote tourism campaign', 109-110 Research methodology, 37 Revenue management, 121 Robotics, 122 current applications of AI and robotics in global tourism industry, 38-39 Room sales, promoting guest, 100-101 adoptability of AR and VR in hospitality industry, 101 technology-based hospitality marketing, 101

Security office, 111–112 Sensors, 135 Service points, intervention of IR 4.0 in. 125–126 Sistema Inteligencia Turistica (SIT), 143-144 Small and medium-sized businesses (SMEs), 123-124 Smart cities, 50 Smart devices. 87 Smart forecasting, 38 Smart systems, 135, 140 Smart tourism development, 88 SmartPLS software, 6-7 Social media data, 142 Software-as-a-Service (SaaS), 123-124 Solow production function, 21 Source expertise, 4 Speech recognition technology, 39-40 SPSS software, 6-7 Structural equation modelling, 6-7 Structural model, assessment of, 9-11 Structural vector autoregressive model, 21 Sustainability, 48-49 central government's destination management organisation, 111 exploring metaverse by destinations towards, 110 exploring metaverse towards tourism sustainability, 110 - 114hosts, 114 implementation, control, monitoring and evaluation centre, 113 intelligence centre, 112-113 local tourism hub, 113 metaverse, 108-110 methodology, 106–107 national tourism hub, 113 results and final considerations. 114-115 security office, 111–112 tourism trends, 72-73 tourists. 113-114 Sustainable development, 83

concept, 110 Sustainable Development Goals (SDGs), 110, 142-143 Sustainable management with big data, 48 - 50Sustainable tourism. (see also Virtual tourism), 52 background, 135-136 big data in, 50-52 destinations, 51-52 exploratory research, conceptual research, frameworks and grounded theory, 136-138 findings, 138-144 industry 4.0, big data and data science, 135-136 institutions promoting big data and data science for sustainable development, 142-144 management, 72 methodology, 136-138 rise of big data in tourism sector, 138 tourism business dimension, 138 - 140tourism governance dimension, 140 - 141tourism research dimension, 141 - 142virtual tourism and, 88-91 Systematic review method, 52–53 Technological advancement, 120, 122 - 123Technological complexity, 21 - 22Technological innovations, 106 Technological revolution, 26-28 Technologies 4.0, 107-108, 114 Technology, 20, 82, 120, 125-126 on economic growth, 20 innovations in tourism industry, 120-125 technology-based hospitality marketing, 101

Theorisation, 137–138

3D technology, 82-83 Tourism. (see also Virtual tourism; Sustainable tourism), 23, 32, 107 - 108alternative form of Tourism in crisis period, 84-85 applications of AI in, 36 business dimension, 138-140 challenges to adopt AI-based applications in, 36–37 curse of, 136 dimension, 141-142 and economic growth, 22-23 ecosystem, 51 education, 85 experiences, 108-109 exploring metaverse towards tourism sustainability, 110 - 114future possibilities of AI applications in, 39-40 governance dimension, 140-141 immersion of Industry 4.0 in tourism services, 125-126 industry, 2, 23 industry practitioners, 11-12 management, 85 metaverse, 115 ongoing metaverse experiments in tourism destinations, 109-110 research, 134, 142 rise of big data in tourism sector, 138 society in Cardiff, 32 technology innovations in, 120 - 125Tourism 4.0, 114, 120 virtual reality and application in field of, 83-85 Tourists, 51, 120 sector, 127 tracking technologies, 142 visit intention, 3 Travel industry, 96–97 Travel intention, 3

Travel vlogs, 2 UNESCO World Heritage Sites, 89 United Nation World Tourism Organisation (UNWTO), 36–37, 88, 143–144 United Nations (UN), 48–49, 110, 143 UN Global Pulse, 143 UN Statistical Division, 110 United Nations' Sustainable Development Goals (SDGs), 48–49 User-generated content (UGC), 135, 142

Virtual destination marketing initiatives, 127 Virtual reality (VR). (see also Augmented reality (AR)), 82-85, 96, 99, 124, 135 alternative form of tourism in crisis period, 84-85 and application in field of tourism, 83-85 destinations marketing, 84 in hospitality industry, 101 in hotel industry, 97-98 technology, 85 tourism education and tourism management, 85 travelling possibilities expanding, 84 trip planning and experience enhancing, 83-84 Virtual technologies, 87 Virtual tourism. (see also Sustainable tourism), 84-85, 91-92, 126 advantages and disadvantages of, 85-87 future of, 87-88 and sustainable tourism, 88-91 Visit intention, 4 Vlogger attractiveness, 4-5 Vlogger credibility, 3 Vlogger expertise, 4 Vlogger trustworthiness, 3–4 Volume, variety and velocity (3V), 48

'VRoom Service', 109–110

Web of science core collections, 53 Web page visit data, 50–51 Web search data, 50–51 World Travel and Tourism Council, 90 Worldwide Network of Tourism Experts, 32

Yellowstone National Park, 109–110 YouTube, 2–3, 133–134