



**EMERALD STUDIES IN FINANCE,
INSURANCE, AND RISK MANAGEMENT**

VOLUME 10A

VUCA
AND OTHER ANALYTICS IN
BUSINESS RESILIENCE

PART A

DEEPMALA SINGH • KIRAN SOOD
SANDEEP KAUTISH • SIMON GRIMA

VUCA and Other Analytics in Business Resilience, Part A

EMERALD STUDIES IN FINANCE, INSURANCE, AND RISK MANAGEMENT

Series Editor: Simon Grima

Books in this series collect quantitative and qualitative studies in areas relating to finance, insurance, and risk management. Subjects of interest may include banking, accounting, auditing, compliance, sustainability, behaviour, management, and business economics.

In the disruption of political upheaval, new technologies, climate change, and new regulations, it is more important than ever to understand risk in the financial industry. Providing high-quality academic research, this book series provides a platform for authors to explore, analyse, and discuss current and new financial models and theories, and engage with innovative research on an international scale.

Previously published:

Uncertainty and Challenges in Contemporary Economic Behaviour *Ercan Özen and Simon Grima*

New Challenges for Future Sustainability and Wellbeing *Ercan Özen, Simon Grima and Rebecca Dalli Gonzi*

Insurance and Risk Management for Disruptions in Social, Economic and Environmental Systems: Decision and Control Allocations Within New Domains of Risk *Simon Grima, Ercan Özen and Rebecca Dalli Gonzi*

Public Sector Leadership in Assessing and Addressing Risk *Peter C. Young, Simon Grima and Rebecca Dalli Gonzi*

Big Data Analytics in the Insurance Market *Kiran Sood, B. Balamurugan, Simon Grima and Pierpaolo Marano*

Big Data: A Game Changer for Insurance Industry *Kiran Sood, Rajesh Kumar Dhanaraj, B. Balamurugan, Simon Grima and R. Uma Maheshwari*

The Adoption and Effect of Artificial Intelligence on Human Resources Management *Pallavi Tyagi, Naveen Chilamkurti, Simon Grima, Kiran Sood and B. Balamurugan*

Contemporary Studies of Risks in Emerging Technology, Part A *Simon Grima, Kiran Sood and Ercan Özen*

Contemporary Studies of Risks in Emerging Technology, Part B *Simon Grima, Kiran Sood and Ercan Özen*

The Framework for Resilient Industry: A Holistic Approach for Developing Economies *Narinder Kumar, Kiran Sood, Ercan Özen and Simon Grima*

VUCA and Other Analytics in Business Resilience, Part A

EDITED BY

DEEPMALA SINGH

Symbiosis International University, India

KIRAN SOOD

*Chitkara Business School, Chitkara University, Punjab, India;
Research Fellow, Women Researchers Council (WRC), Azerbaijan
State University of Economics (UNEC)*

SANDEEP KAUTISH

*School of Computing, Model Institute of Engineering & Technology
(Autonomous), Jammu, J&K, India*

AND

SIMON GRIMA

University of Malta, Malta; University of Latvia, Latvia



United Kingdom – North America – Japan – India – Malaysia – China

Emerald Publishing Limited
Emerald Publishing, Floor 5, Northspring, 21-23 Wellington Street, Leeds LS1 4DL.

First edition 2024

Editorial matter and selection © 2024 Deepmala Singh, Kiran Sood, Sandeep Kautish,
and Simon Grima.

Individual chapters © 2024 The authors.

Published under exclusive licence by Emerald Publishing Limited.

Reprints and permissions service

Contact: www.copyright.com

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN: 978-1-83753-903-1 (Print)

ISBN: 978-1-83753-902-4 (Online)

ISBN: 978-1-83753-904-8 (Epub)



INVESTOR IN PEOPLE

Contents

About the Editors	vii
About the Contributors	ix
Foreword	xix
Preface	xxi
Chapter 1 Exploring Scientific Publications in the Field of Management in Tertiary Education Using Bibliometric Analysis <i>Adriana Grigorescu, Adriana AnaMaria Davidescu, Eduard Mihai Manta, Cristina Maria Geambasu and Ionel Magdalena</i>	1
Chapter 2 Relevance of <i>Backcasting</i> as a Strategic Tool Towards Organisations' Sustainable Future – A Key to Thrive in the VUCA World <i>Rameesha Kalra, Kiran Vazirani, Sanjeev Kadam and Dippi Verma</i>	39
Chapter 3 Fostering Creativity, Innovative Service Behaviour, and Performance Among Entrepreneurs in the VUCA World Through Employee Engagement Practices <i>Akansha Mer and Amarpreet Singh Virdi</i>	59
Chapter 4 VUCA Leadership Strategies and COVID-19 <i>Jiveta Chaudhary Grover and Shilpa Sindhu</i>	77
Chapter 5 The Role of Personal Harmony and Organisational Citizenship Behaviour in Enhancing Job Satisfaction of Teachers Working in Indian Higher Educational Institutions During the COVID-19 Catastrophe in the VUCA World <i>Alex Praveen Raj M., Nelson D. and Anand Shankar Raja M.</i>	101

Chapter 6 The Sources of Stock Market Volatility: A Study on the Colombo Stock Exchange <i>Mohamed Ismail Mohamed Riyath, Narayanage Jayantha Dewasiri, Mohamed Abdul Majeed Mohamed Siraju, Athambawa Jahfer and Kiran Sood</i>	127
Chapter 7 Stock Market Volatility and the COVID-19 Pandemic in Sri Lanka <i>Mohamed Ismail Mohamed Riyath, Narayanage Jayantha Dewasiri, Mohamed Abdul Majeed Mohamed Siraju, Simon Grima and Abdul Majeed Mohamed Mustafa</i>	151
Chapter 8 Predictive Innovation Management Using Data Analytics and Machine Learning <i>Chikezie Kennedy Kalu and Esra Sipahi Döngül</i>	169
Chapter 9 Proficiency in the Handicraft Sector Business in a Volatile, Uncertain, Complex, and Ambiguous Environment <i>Uma Shankar Yadav, Kiran Sood, Ravindra Tripathi, Ashish Kumar and Saad Ahamad Khan</i>	183
Chapter 10 Identifying Emerging VUCA Factors in the Pandemic Era <i>Mahalakshmi S., Anitha Nallasivam and Sandeep Kautish</i>	199
Chapter 11 Risk-Return Volatility Analysis of the Nifty 50 Financial Geared Stocks <i>Rohit Sood, Ajay Sidana and Neeru Sidana</i>	209
Chapter 12 ARCH–GARCH Analysis Between Investments and Financial Performance Volatility in Kosovo’s Commercial and Manufacturing Enterprises <i>Fisnik Morina, Albulena Sylja and Sadri Alija</i>	229
Chapter 13 Agile Leadership in the VUCA World: Combating Challenges of the COVID-19 Pandemic <i>Ashutosh Verma</i>	267
Index	287

About the Editors

Deepmala Singh is an Assistant Professor at Symbiosis Centre for Management Studies, Nagpur, India and Symbiosis International (Deemed University), Pune, India. She completed her PhD from Banaras Hindu University, India, in 2016.

Kiran Sood is a Professor at Chitkara Business School, Chitkara University, Punjab, India; Research Fellow, Women Researchers Council (WRC), Azerbaijan State University of Economics (UNEC). She received her UG and PG degrees in Commerce from Punjab University, respectively, in 2002 and 2004. She earned her Master of Philosophy degree in 2008 and Doctor of Philosophy in Commerce with a concentration on Product Portfolio Performance of General Insurance Companies in 2017 from Panjabi University, Patiala, India. Before joining Chitkara University in July 2019, Kiran had served four organisations with a total experience of 18 years. She has published various articles in various journals and presented papers at various international conferences. She serves as an Editor of the refereed journal, particularly the *IJBST International Journal of BioSciences and Technology*, *International Journal of Research Culture Society*, and *The Journal of Corporate Governance, Insurance, and Risk Management (JCGIRM)*. Her research mainly focuses on regulations, marketing and finance in insurance, insurance management, economics and management of innovation in insurance. She has edited more than 10 books with various international publishers such as Emerald, CRC, Taylor & Francis, AAP, WILEY Scrivener, IET, Rivers Publishers, and IEEE.

Dr Sandeep Kautish is an Academician with 19 years of work experience in academia in various institutions of India and abroad. He is working as Dean-School of Computing, Model Institute of Engineering & Technology (Autonomous), Jammu, J&K, India. He has been setting up academic setups across India. He earned his Bachelor's, Master's, and Doctorate degrees in Computer Science on Intelligent Systems in Social Networks. His areas of research interest are healthcare analytics, business analytics, machine learning, data mining, and information systems. He has 50+ publications in his Scopus account with an H-Index of 12. Similarly, he has 1,000+ Google Scholar citations with an H-Index of 19 and an i-10 index of 32. His 36 publications are included in the Web of Science Core Collection with an H-Index of 10. He has publications in reputed journals like Springer, Elsevier, Taylor & Francis, Wiley, and IGI Global. He has also authored/edited more than 15 books with reputed publishers. He has been invited as a Keynote Speaker at VIT Vellore in 2019 for an International

Virtual Conference held at the VIT Vellore Campus. He filed one patent in the field of Solar Energy Equipment Using Artificial Intelligence in 2019. He has been instrumental in organising more than 10 conferences and 15+ FDPs/FTPs in India and abroad. He is an Editorial Member/Reviewer of various reputed SCI/SCIE journals.

Simon Grima is the Deputy Dean of the Faculty of Economics, Management and Accountancy, Associate Professor and the Head of the Department of Insurance and Risk Management at the University of Malta. Simon is also a Professor at the University of Latvia, Faculty of Business, Management and Economics and a Visiting Professor at UNICATT Milan.

About the Contributors

Prof. (Dr.) AMM Mustafa is a highly regarded academic specializing in Business Economics at the South Eastern University of Sri Lanka. Currently serving as the Head of the Department of Management and the chairperson of the Sri Lanka Forum of University Economists (SLFUE), Prof. Mustafa holds a PhD from the University of Jaffna. He contributes significantly to the academic community as the Chief Editor of the Journal of Management and Journal of Business Economics. Prof. Mustafa has a prolific research portfolio, with publications and books to their credit. They have actively engaged in research conferences worldwide and have played a crucial role in the university's developmental initiatives.

Sadri Alija holds the position of Full Professor of Applied Mathematics and Mathematical Modeling at the South East European University in Tetovo, North Macedonia. Dr Alija also holds a Master of Science in Mathematics program Probability, Statistics, Applications at the Faculty of Natural Sciences, University of Tirana, Albania, a PhD from the Faculty of Business and Economics at SEEU in Economics and received a PhD in the field of Applied Mathematics in Economics. Dr Alija has more than 23 years of teaching experience at the undergraduate and graduate levels in various institutions.

Nelson D. is a Research Scholar and a Student from Christ University, Bangalore, pursuing a PhD in Commerce. Nelson's areas of interest fall under organising and managing events, taking up leadership roles to explore various opportunities, and having a passion for learning something new.

Adriana AnaMaria Davidescu is Full Professor in the Department of Statistics and Econometrics of the Bucharest Academy of Economic Studies and Senior Researcher at the National Institute for Scientific Research in Labour and Social Protection, with over 14 years of experience in socio-economic research and labour market analysis. Adriana has a PhD from the Bucharest University of Economic Studies and has been a Visiting Scholar at the University of Salerno (Italy). She has over 14 years of experience in the analysis of informal economy issues, coordinating or being a member of the research team of over 50 national and international projects.

Prof (Dr) Narayanage Jayantha Dewasiri is a Professor attached to the Department of Accountancy and Finance, Sabaragamuwa University of Sri Lanka. He currently serves as the Brand Ambassador at Emerald Publishing, UK, and the Vice President of the Sri Lanka Institute of Marketing. He is a pioneer in applying triangulation research approaches in the management discipline. He is currently serving as the Co-Editors-in-Chief of the *South Asian Journal of Marketing* published by Emerald Publishing, Managing Editor of the *Asian Journal of Finance*, and *South Asian Journal of Tourism and Hospitality* published by the Faculty of Management Studies, Sabaragamuwa University of Sri Lanka.

Assist. Prof Esra Sipahi Döngül graduated from the Istanbul Gelisim University Business Administration Doctorate Program. Her areas of management, social work, social media, and expertise are data analysis, business, and organisation. She has a strong background in research activities in corporate social responsibility and management organisation areas. She has published many articles in the field of corporate social responsibility and has also attended and presented at numerous international conferences. She is Associate Editor of *Heliyon* (SCIE-Scopus) indexed journal. She has good skills in data analysis, Artificial Intelligence applications, statistical analysis, and administrative applications. She is currently working at the Aksaray University, Turkey.

Cristina Maria Geambasu is a PhD student at the Doctoral School of Cybernetics and Statistics and has an experience of over 5 years on data manipulation and analysis, currently occupying the position of Senior Data Analyst at GfK Romania, aiming to bring innovative approaches and insightful visualisations to data collections and analysis. In the last year, she has focused on exploring the data science branch and machine learning techniques. The subject studied in the PhD is micro and macro approaches on the regional informal economy phenomenon and the main objective of the thesis is to explore the main determinants of informality and to estimate the dimension of the regional informal economy.

Prof Adriana Grigorescu is Full Member of the Academy of Romanian Scientists, Associate Senior Researcher at Romanian Academy National Institute for Economic Research ‘Costin C. Kirilăscu’ – Center for Renewable Energies and Energy Efficiency, PhD Supervisor in Management since 2010 and has a rich practical, academic, and research experience. She teaches at the National University of Political Studies and Public Administration (SNSPA) Management and Marketing at the Faculty of Public Administration. She is the President of the European Business Ethics Network Association – Romania (EBEN-Romania) – 2020 and of the Holistic Research Academic Association (HoRA) – 2016. <https://orcid.org/0000-0003-4212-6974>

Jiveta Chaudhary Grover is an MBTI® Certified Practitioner with extensive experience in student mentoring, career counselling, and personality development. She has an MBA in HR from GGS Indraprastha University. Additionally,

she has secured a Diploma in Training and Development from the Indian Society for Training and Development (Gold Medal). She has served the ITES and the NBFC service sectors and has been part of academia for more than 13 years. She has attended and organised multiple national and international workshops on Research Methodology, Case Study Development, Quality Education, etc. She has to her credit multiple publications in international journals. She has attended multiple conferences including GGSIPU and IIT Roorkee. Currently, she is serving as Assistant Professor (Sr Scale) at the School of Management and Liberal Studies, The NorthCap University. She is enrolled as a Doctoral candidate with The NorthCap University and is pursuing her research in the field of leadership.

Athambawa Jahfer is a Professor attached to the Department of Accountancy and Finance, Faculty of Management and Commerce, South Eastern University of Sri Lanka, Sri Lanka. He has been teaching financial management, investment valuation, and accounting since 1997. His research interest includes financial market development, capital market, investor behaviour, capital market efficiency, and monetary economics. He is a Graduate of B.Com (Hons) from the University of Colombo, Sri Lanka. He holds an MSc in Management from the University of Sri Jayewardenepura, Sri Lanka and he received his PhD in Business Administration from Yokohama National University, Japan in 2006. He was a Visiting Research Fellow in the same university (June 2012–May 2013). He has published articles in reputed national as well as international journals and presented papers at national and international conferences.

Dr Sanjeev Kadam is currently working as an Assistant Professor at Symbiosis Institute of Business Management Pune, India. He did his PhD in Management from Symbiosis International (Deemed University), Pune, India. To his credit, he has 20 years of industry experience and has been in academia for the last 12 years. His research interests are multidisciplinary in nature especially focusing on operations. Dr Kadam is an Associate Member of The Institution of Engineers (India).

Dr Rameesha Kalra started her career as an Assistant Manager at ICICI Bank where she spent 2.5 years and has now been associated with teaching for more than 15 years. She holds a Master's degree in Business administration (MBA Finance and HR) from FMS, Ajmer University and was a topper in the MBA program. She is also UGC (NET) qualified. She completed her PhD from Banasthali Vidyapith (Rajasthan) on 'Performance Evaluation of Banking Industry Using Balanced Scorecard Approach'. She has to her credit several research papers in journals of repute and has participated in various conferences at the national as well as international level.

Chikezie Kennedy Kalu is currently a PhD Student at the School of Management, in the Department of Management Science and Engineering, Jiangsu University, China. His field of research is technology and innovation management. He is

from Nigeria and has a B.Eng. in Electronics Engineering from the University of Nigeria, Nsukka, Enugu State, Nigeria (UNN) and a Masters (with Distinction) in Communication Engineering from the University of Manchester, UK. He has done research works cutting across management, wireless communication, agriculture, and health. He has also had professional work experiences cutting across the fields of: Telecom, Retail, Education, Oil and Gas, ICT and Logistics.

Dr Saad Ahamad Khan is Assistant Professor in Oman University, Oman. He has published more than 30 research papers. He is also Guest Editor in *Indersciences* (IJPEE) journal and many more journals. His research area is financial management and marketing.

Ashish Kumar works in the Department of Humanities and Social Sciences, Motilal Nehru National Institute of Technology Allahabad. His research area includes Gig Economy and Entrepreneurship. He has published over 20 research papers in Scopus-indexed and ABDC-listed journals.

Alex Praveen Raj M. is a Research Scholar and a Student from Christ University, Bangalore, pursuing a PhD in Commerce. Alex's areas of interest lie in event management and showcasing leadership skills in various academic activities. The ultimate goal is to impart and inculcate research knowledge to a broad group of budding students.

Dr Anand Shankar Raja M., hails from an educational background, and he is also a board member of his family-run Higher Educational Institution 'NRKN Higher Secondary School', which is situated in Kunnathur, Tamil Nadu. He has earned his Doctorate degree from SRM University, Chennai, Tamil Nadu, in Human Resource Management. His area of specialisation is 'Market Research' where he explores mystery shopping professionals, and he also conducts ample mystery shopping activities for different brands across the globe. He has published a few articles which are indexed with Emerald, Taylor and Francis, and Springer.

Ionel Magdalena is a PhD student in Management at the National University of Political Studies and Public Administration, Bucharest, Romania.

Eduard Mihai Manta is a PhD student at the Doctoral School of Cybernetics and Statistics and has over seven years of experience in model risk management, holding various positions in data teams. In the past years, he focused on machine learning and data science. The subject studied in the PhD is the COVID-19 pandemic – an accelerator of the implementation of sustainable development concepts, resilience, green and inclusive of the global economy. He has experience working with one of the principal NGOs in the field of education, working on reports that underlie decision-making within the organisation.

Akansha Mer is an Assistant Professor in the Department of Commerce and Management, Banasthali Vidyapith, Rajasthan, India. She has earned her

Doctorate on Work Engagement in NPOs from Banasthali Vidyapith. She has 2.5 years of corporate experience and about a decade of academic work experience. Her research interests include work engagement, adoption of technology by consumers, mindfulness, workplace spirituality, working patterns of non-profit organisations and Artificial Intelligence in HRM and marketing. She has published research papers with Emerald, Springer, Taylor and Francis (Routledge), Sage, Wiley, and Inderscience.

Fisnik Morina is an Assistant Professor in the fields of Banking, Finance, Economics, and Econometrics at the Faculty of Business at the University ‘Haxhi Zeka’ in Peja, Kosovo. Currently, Fisnik Morina is Vice Dean for Teaching, Student Affairs, and Scientific Research at the Faculty of Business. In 2023, Fisnik Morina will continue his post-doctoral research in the field of Banking and Finance at the Institute of Economics, University of Graz in Austria. In 2022, Fisnik Morina successfully completed his post-doctoral studies in the fields of financial institutions and risk management at the University of Malta. He completed his doctoral studies in 2019 at the South East European University, Faculty of Business and Economics in the Republic of North Macedonia, and qualified as Doctor of Economic Sciences-Economics. Fisnik Morina has international experience in the field of scientific research, has several scientific papers published in international scientific journals, and has participated in many international scientific conferences in many countries of the European Union. Fisnik Morina is internationally certified by the Center for Economic Research and Graduate Education – Economics Institute (CERGE-EI) in the Czech Republic for contemporary teaching methods in Higher Education and is a Senior Trainer at the Center of Excellence at the University ‘Haxhi Zeka’ in Peja.

Dr Anitha Nallasivam is currently associated with Jain CMS Business School as a Professor. She has published more than 45 research articles in reputed journals such as Scopus and WOS. She completed more than 10 research projects funded by the funding agencies AICTE, ICSSR, and DST. She mentored a few startups and founder and creator of a campus company. Her research areas of interest are consumer behaviour and sentiment analysis. She has presented more than 50 papers in conferences international and national as well as published two books. She is a Certified Trainer for behavioural training.

Dr Mohamed Ismail Mohamed Riyath is an Accomplished Academic and Lecturer in the Department of Accountancy and Finance at the Faculty of Management and Commerce, South Eastern University of Sri Lanka. He graduated with a BBA Specialisation in Finance, achieving First Class Honours, and went on to earn an MSc in Management from the University of Sri Jayewardenepura. Driven by his passion for research, he obtained his PhD in Finance from Sabaragamuwa University of Sri Lanka. With a focus on accountancy, finance, and multidisciplinary studies, he has published numerous research articles in respected academic journals and has presented his findings at prestigious international conferences. His dedication to professional development is evident through his membership in

The Institute of Certified Management Accountants of Sri Lanka and various other professional societies. Beyond his academic accomplishments, he has demonstrated strong leadership abilities, having served as Head of Department and holding key roles in research and innovation, as well as internal quality assurance.

Dr Mahalakshmi S. is currently working as an Assistant Professor in the Faculty of Management Studies, Jain Deemed to be University. She has completed her Engineering in Computer Science from VTU and her MBA in Marketing and Systems from Bangalore Central University. She has worked in the area of Project Management in CGI Information Systems and Management Consultants for 3.5 years. Later awarded with PhD for the topic 'Internet of Things (IoT) in Power Distribution Management'. She has over 25+ papers published in reputed Scopus-indexed journals. She has to her credit, for publishing, a book chapter for Springer on the Internet of Things (IoT). She has conducted and chaired various conferences. She is also a Content Developer for an online MBA course for Manipal University and well-developed courses for MBA in Jain University online programs. She is also a certified behavioural trainer.

Ajay Sidana has more than 22 years of comprehensive experience in the corporate and academic sectors. He is a dynamic and laborious personality, a shining star in his career so far and left good benchmarks to be achieved. He has worked with Mumbai-based corporate, associated with NSE listed company, namely Appcotax Securities Ltd. (A wholly owned company of Asian Paints). He served as Branch Head in Bajaj Capital Ltd. New Delhi and Punjab Locations, where he has handled the NRI/ HNI portfolios and their financial planning. He has been associated with wealth management, investment management and banking sector for more than 12 years. Having passion for teaching, training, and imparting quality education, he has been into academic sector too. He has also been associated with the leading educational group, affiliated with Kurukshetra University – Haryana, namely 'Shree Siddhivinayak Educational Trust's Group of Institutions', Distt. Yamuna Nagar, Haryana. He has participated in more than 100 seminars, workshops, national and international conferences, NMC, FDP and MDP and had hands-on experience in conducting national/international conferences and seminars. He is closely associated as a life time member with professional bodies Indian Commerce Association (ICA), All India Management Association (AIMA), and Association of Indian Management Scholars (AIMS International). He is a widely travelled person, and his extrovert personality and temperament give and him a winning edge.

Neeru Sidana has more than 12 years of comprehensive teaching experience in academic sector. She is a dynamic and laborious personality, a shining star in her career so far and has left good benchmarks to be achieved. She is currently associated with the Amity School of Economics (ASE), Amity University – Noida. She has worked with the leading educational group affiliated with Kurukshetra University. She has also served as Associate Professor – Economics Domain in

Lovely Professional University, Jalandhar-Punjab. Having passion for teaching and training, she has participated in more than 50 seminars, workshops, conferences, FDP and MDPs and presented research papers also in reputed national and international conferences. She is a widely travelled person, and her extrovert personality and temperament give her a winning edge.

Dr Shilpa Sindhu is an Associate Professor of Marketing and Entrepreneurship at Department of Management (MBA), Maharaja Surajmal Institute, Janakpuri, New Delhi. She has around 16 years of experience: 5 years in marketing and research of agri-products at NAFED; and more than 11 years in academia. Her area of specialization is Marketing with interests in Consumer Behavior, E-commerce, Retail Marketing, Services Marketing and Entrepreneurship. She has authored/co-authored 33+ research papers in reputed international and national journals which include Scopus, ABDC indexed and SSCI. She has attended and presented papers in more than 15 conferences and seminars at reputed institutions like IIT, MDI, IMC, AIMA, JNU, IPU, in the areas of marketing, entrepreneurship, e-tailing, rural marketing, and economics. She has authored five published book chapters and a Book with an International Publisher. She has supervised one doctoral research (awarded) and is guiding three research scholars in the area of Marketing/Advertising/Leadership. She is a Lifetime member of All India Management Association (AIMA), Indian Society of Agricultural Development & Policy, PAU, Ludhiana and Haryana Economic Association. She has been the key resource person for various sessions in National and International seminars and conferences. She holds PhD in Business Administration from Chaudhary Devi Lal University, Sirsa, MBA from VAMNICOM, Pune, BA (H) English from Panjab University, Chandigarh and is ASRB (ICAR)-NET qualified.

Mohamed Abdul Majeed Mohamed Siraju is a Senior Assistant Registrar attached to the Capital Works and Planning Division of the Eastern University, Sri Lanka. He has obtained a BBA Specialisation in Information System with 2nd class Honours from the South Eastern University of Sri Lanka. He holds a Post Graduate Diploma in Conflict Resolution and Peace Preparedness from the University of Bradford, UK and a Master of Business Administration from the University of Peradeniya, Sri Lanka. He is also a Member of the Institute of Management of Sri Lanka. He has published research articles in academic journals and international conferences in management information system, accountancy and finance, and multidisciplinary studies.

Rohit Sood is Assistant Professor at Department of Finance, Lovely Professional University, Phagwara, Punjab (India). He has an extensive academic and professional experience of more than 12 years. He has presented 5 papers at national and international conferences and 10 papers have been published in reputed international referred journals with high impact factors and indexing on Google Scholar, Scopus, BEIESP, Open J Gate, DOAJ, get CITED, dig, Higher Education Forum, Cite Factor, Index Copernicus, Search Sight, Scirus, UK Index, New

Jour, and Research Gate. Apart from this, he has attended various conferences, workshops, and seminars in different colleges. He has attended 10+ relevant training and courses for continuous learning. HE has attended more than 10 Faculty Development Programs. He is a life member of the Society of FSP and Global Risk Community.

Albulena Syla completed his Master's degree in 2023 at the University 'Haxhi Zeka' in Peja, Faculty of Business, Department of Banking and Finance. Albulena has experience in the field of scientific research and has participated in scientific conferences. Currently, Albulena is a Financial Officer at the trading company 'Nora Market' in Klina. In recent years, Albulena has attended a significant number of trainings in the fields of finance, business management, investment and accounting.

Dr Ravindra Tripathi is an Associate Professor in the Department of Humanities and Social Sciences, Motilal Nehru National Institute of Technology Allahabad. To his credit, he has more than 40 research papers in Scopus-indexed and ABDC-listed journals. His research area includes accountancy, microfinance, financial management, taxation and economics.

Dr Kiran Vazirani started her career as an Assistant Professor at Pioneer Institute of Management and has now been associated with Christ (Deemed to be University) with a total of eight years of teaching experience. She holds a Master's degree in Business Administration (MBA in Marketing and Finance). She completed her PhD from Janardhan Rai Nagar Rajasthan Vidyapeeth (Rajasthan). She has been actively participating in various conferences, faculty development programs, and workshops at the national and international levels. She also has to her credit several research papers published in reputed journals.

Dr Ashutosh Verma is currently working as Associate Professor at Khalsa College of Engineering & Technology, Amritsar. Dr Verma completed his MBA and Doctorate from Himachal Pradesh University, Shimla. He carries an extensive experience of more than 17 years (academic and corporate) and has been associated with companies of repute such as Torrent Pharmaceuticals Ltd, Fullerton India Credit Company and Nectar Lifesciences Ltd. prior to his academic debut. He is an active learner and has attended and participated in several seminars, conferences and workshops. Dr Verma has several journal articles and book chapters to his credit along with a recently published patent. Dr Verma has authored a book titled *Engaging HR strategies: Building a dynamic workforce for success in the modern Era*.

Dr Dippi Verma is a Doctorate in Finance with a rich experience of 18 years. She is a member of a panel of paper setters for many universities and autonomous institutions of Bangalore. She has authored a book on business ethics. She is a Reviewer for various journals, chaired many conferences, seminars, business

games, and panel discussions in various colleges and institutions. Apart from this, she facilitated training and development programs for students and faculty. She organised many workshops, seminars and events in the institutions. Also, published many research articles in various journals, presented papers and participated in conferences.

Amarpreet Singh Virdi is an Assistant Professor at the Department of Management Studies, Kumaun University Bhimtal Campus, Nainital (Uttarakhand). He has a corporate experience of working with a software company dealing with share market software based on Oracle database and forms. His research interests include the self-service technologies in banking, green product/marketing, adoption of technology by consumers, working patterns of NGOs, design thinking, Fintech, Artificial Intelligence in marketing and HR. He has published papers and book chapters with leading publishers like Sage, Inderscience, and Wiley and Scrivener.

Uma Shankar Yadav is working as a Senior Research Fellow in Humanities and Social Science at Motilal Nehru National Institute of Technology Allahabad, Prayagraj, India. He has published more than 50 research papers in reputed global journals and in the Ministry of MSME. He is currently Deputy Editor in Chief in *Bank and Policy Journal*, Science Education and Innovation in Modern Prospects, Associate Editor in 12 international journals, and editorial board member in 15 international journals at the global level. He is a Reviewer in many reputed SCOPUS indexed, ABDC B LISTED, journals like AER, JAST, SEDME, RMI, FIIB, and Vision (all are SAGE Publication Scopus Journals). He is serving as a pioneer in the handicraft industry in the district of Prayagraj India. He has three book chapters with Taylor Francis Group and Palgrave Macmillan. He has also published one book on the *Proposal of Global Handicraft Index* (Lambert Academic Publishing Maldoa).

This page intentionally left blank

Foreword

The global economic trends seen in recent decades, especially in investment and trade, have tightened linkages between different countries and regions around the world. Since the early 1970s, internationalisation of enterprises has been considered as one of the main areas of study in international business. Internationalisation means an increasing involvement of firms in the international market, be it in just a specific segment of corporate operations or the entire operational activity. Internationalisation takes place when, for instance, enterprises establish diverse cross-border relationships with their counterparts in other countries, starting usually with relatively simple forms, such as exports and then progressing to much more advanced ones that include, i.e. FDIs. Whichever form is selected, any business that embarks on the path of internationalisation gets exposed to many more uncertainties than those at the domestic market. Hence business resilience becomes really important.



Over the past few years, companies have faced unprecedented uncertainties and turbulences in the global economy. Ambiguous and sometimes even contradictory conclusions drawn in the studies on business resilience, are, in my opinion, the fundamental reason why in-depth studies on the effects of global turbulences and their impact on international business should be conducted. Obviously, there is a shortage of conceptual and empirical studies in this field that would address, in particular, the pandemic and its effects, such as global value chain disruptions, new patterns for investment attractiveness, industrial revolution 4.0, environmental and climate changes, and, last but not least, the impact of wars and political conflicts on business activity at international level.

This book attempts to fill this gap by presenting, discussing, and analysing different aspects of a trendy managerial acronym: VUCA, which in short reflects on the *volatility*, *uncertainty*, *complexity*, and *ambiguity*. The book covers the most important aspects of the VUCA and highlights valuable insights on business resilience. In this book, readers will find both the conceptual chapters and empirical analysis. The book discusses interesting and original studies and is highly recommended to all those interested in business and diverse

aspects of its resilience, a subject so pertinent in our contemporary times filled with uncertainties. Personally, I am grateful for having an opportunity to read this book published by the prestigious publishing house. Congratulations to the Authors and Editors!

Dr hab. Tomasz Dorożyński, prof. UŁ
Head of Faculty's Centre for Training and Apprenticeship
Department of International Trade
Institute of Economics
Faculty of Economics and Sociology
University of Lodz (Poland)

Preface

During the COVID-19 pandemic, companies and governments faced a need to simultaneously address multiple competing priorities. One of the most difficult challenges is how to keep an economy running while shutting it down to protect inhabitants from illness. As some areas recover from the worst of the crisis, it's tempting to believe that the attention will shift back to a single issue. Leaders rapidly embraced advanced analytics and artificial intelligence (AI) prior to the COVID-19 pandemic's control over the world and with good reason. The annual economic worth of these talents is anticipated to range between \$9.5 trillion and \$15.4 trillion.

Increases in the amounts and types of uncertainty can have significant implications for the long-term viability of a company's advantages, the way companies learn and adapt, ways to manage innovation and knowledge, and the attractiveness of various strategies and organisational models. In today's world, company executives need strategic flexibility in volatility, uncertainty, complexity, and ambiguity (VUCA) to maintain a competitive advantage. VUCA is a business acronym that has only recently entered the business lexicon. VUCA are adjectives that have been used in various ways to characterise a situation that defies confident diagnosis and perplexes executives. Same as VUCA Business, analytics is also considered to be a big boon for businesses since it helps them achieve a competitive edge by providing timely insights, optimising business processes, and generating growth and innovation opportunities. Many strategic questions arise as firms begin their business analytics programmes. The need for expanded knowledge and use of new concepts and frameworks to deal with unpredictable and rapidly changing situations is addressed in this book, which covers VUCA and analytics. Business analytics is considered to be a big boon for businesses since it helps them achieve a competitive edge by providing timely insights, optimising business processes, and generating growth and innovation opportunities. Many strategic questions arise as firms begin their business analytics programmes. This comprehensive edited book is the first of its kind, designed to serve as a textbook for long-duration business VUCA analytics programs. This book brings together works by specialists from different disciplines and continents to reflect on the nexus between VUCA and analytics.

We discuss descriptive/diagnostic, predictive, and prescriptive analytics tools, as well as how they might be used to investigate 'black swan' occurrences like the COVID-19-related worldwide catastrophe and the ramifications for managers and policymakers.

The book spells out, first of all, what our VUCA world and analytics entail, and how it affects businesses, organisations, and societies as a whole. Secondly, the book develops new perspectives on the use of Analytics in the VUCA World of business. In this book, we'll explore what VUCA and analytics mean in more detail, and we'll look at how by combining the two, i.e. VUCA and Analytics can manage successfully in an unpredictable business world. The book explores the power of analytics in the VUCA world to make valuable predictions for the business and how successful leaders can design their crisis-management techniques using a new VUCA model in the form of VUCA analytics to develop a new perspective in smart decision making.

Distinguished Features of the proposed Book:

- State-of-the-art documentation of futuristic Analytics methods and applications right from beginner level to advanced level.
- Excellent reference material for academic scientists, researchers, and research scholars.
- Shows readers how to use analytics in the VUCA world of business to discover patterns and make predictions for all types of businesses.
- The proposed book will empower the rethinking processes, i.e. how we integrate Analytics in VUCA and use the resulting perceptions to advance decisions.
- This book will show new directions to stakeholders to select important services to allow integrated systems to perceive reason, learn, and act intelligently in real-life scenarios.

Kiran Sood
Chitkara Business School, Chitkara University, Punjab, India

Simon Grima
University of Malta, Malta; University of Latvia, Latvia