Digitalization, Sustainable Development, and Industry 5.0

Digitalization, Sustainable Development, and Industry 5.0: An Organizational Model for Twin Transitions

EDITED BY BÜLENT AKKAYA

Manisa Celal Bayar University, Turkey

SIMONA ANDREEA APOSTU

Bucharest University of Economic Studies, Romania

EGLANTINA HYSA

Epoka University, Albania

AND

MIRELA PANAIT

Petroleum-Gas University of Ploiesti, Romania



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Melis Attar and Aleem Abdul-Kareem

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List of Contributors

Aleem Abdul-Kareem Selçuk University, Turkey

Mirela-Ionela Aceleanu The Bucharest University of Economic

Studies, Romania

Bulent Akkaya Manisa Celal Bayar University, Turkey

Apostu Simona Andreea Bucharest University of Economic Studies,

Romania

Valentina Arena SMI Technologies and Consulting srl, Italy

Melis Attar Selçuk University, Turkey

Bătrîncea Ana-Maria The Bucharest University of Economic

Studies, Romania

Catholic University of Pereira, Colombia

Mónica Yuleni Castro

Peña

Amalia Cristescu Bucharest University of Economic Studies,

Romania

Surjeet Dalal Amity University Haryana, India

Adriana AnaMaria Bucharest University of Economic Studies,

Davidescu Romania

Thilini Deshika Wayamba University of Sri Lanka, Sri Lanka

Esmir Demaj EPOKA University, Albania

Gina-Cristina Dimian The Bucharest University of Economic

Studies, Romania

Hiranya Dissanayake Wayamba University of Sri Lanka, Sri Lanka

Carmen Elena Dobrotă University of Bucharest, Romania

Raquel Fernández-González University of Vigo, Spain

Iza Gigauri Saint Andrew the First-Called Georgian

University, Georgia

Davide Giribaldi Swiss Cyber Com SA, Switzerland Grădinaru Giani-Ionel The Bucharest University of Economic

Studies, Romania

Anuradha Iddagoda University of Sri Jayewardenepura, Sri

Lanka

Hatice Irmak Manisa Celal Bayar University, Turkey

Laeeq Razzak Janjua WSB University, Poland

Alexandra Jaramillo- Comfamiliar Risaralda University Founda-

Gutiérrez tion, Colombia

Diana Joita School of Advanced Studies of the Romanian

Academy (SCOSAAR), Romania

Osman Koroglu Epoka University, Albania

Eduard Mihai Manta Bucharest University of Economic Studies,

Romania

Denis Mehillaj BALFIN Group, Albania

Gözde Mert Istanbul Nisantasi University, Turkey
Mihai Mihaela The Bucharest University of Economic

Studies, Romania

Eva Militaru National Scientific Research Institute for

Labour and Social Protection, Romania

Ioana-Manuela Mindrican The Bucharest University of Economic

Studies, Romania

Lloyd Herbert Morris

Molina Catholic University of Pereira, Colombia

Valentina Ndou University of Salento, Italy

Andrei Pisică Bucharest University of Economic Studies,

Romania

Diana Popa Bucharest University of Economic Studies,

Romania

Catalin Popescu Petroleum-Gas University of Ploiesti,

Romania

Magdalena Radulescu University of Piteşti, Romania

Thanushka Rukshan Wayamba University of Sri Lanka, Sri Lanka

Bijeta Seth B. M. Institute of Engineering & Technology,

India

Monia Spagnolo University of Salento, Italy

Larisa Stănilă National Scientific Research Institute for

Labour and Social Protection, Romania

Dimitrina Stefanova South-West University "Neofit Rilski",

Bulgaria

Țițan Emilia The Bucharest University of Economic

Studies, Romania

Özge TopsakalManisa Celal Bayar University, TurkeySema ÜstgörülManisa Celal Bayar University, TurkeyMaria Denisa VasilescuBucharest University of Economic Studies,

Romania

Valentin Vasilev Higher School of Security and Economics,

Bulgaria

Maddalena della Volpe University of Salerno, Italy

Ayşe Meriç Yazıcı Istanbul Gelisim University, Turkey

Preface

Humanity is at a crossroads, bombarded by numerous economic, social, environmental, and technological challenges. International institutions, public authorities, private companies, investors, consumers, and other stakeholders are looking for solutions. Solutions are sought, objectives are established, measures are set up, action is taken, and the results are subsequently evaluated. The metamorphosis of the world economy is under the sign of digitization and a new energy transition process (from fossil fuels to renewable), humanity trying to promote a sustainable development that ensures the preservation of resources and the environment for the next generations. Public authorities create the legal and institutional framework; companies fuel the process of technological innovation but also to promote sustainable development in their activity. Social responsibility has become a key element of the business strategy, the concept being embraced by other categories of stakeholders such as portfolio investors and universities. All sectors of activity are in a complex process of restructuring, the actions of companies and stakeholders being reshaped by new technologies. In addition, the new normal is gaining ground after the pandemic generated by the Covid-19 crisis; Companies embracing a Society 5.0-based new normal model (a new function of the organization).

The books bring together 18 chapters that address from a managerial perspective the paradigm changes registered in different fields of activity as a result of the digital transition, the workforce being in a process of adapting to new technologies.

The digital transition is felt in all fields of activity, with remarkable results being recorded in health, the financial industry, or the energy sector. The reduction in population mobility during the Covid-19 pandemic has determined the promotion of telemedicine, which offers appropriate solutions for detecting certain diseases.

The need to promote the principles of sustainable development and energy transition has implications on business strategies, profit maximization no longer being the sole objective of companies. Nonfinancial performance is followed equally by companies and investors.

The book stands out for its complex character, analyzing the structural transformations recorded at the sector and company level as a result of the twin transition. In addition, the geographical dispersion of the authors and their expertise not only ensure the interdisciplinary approach to the twin transition phenomenon but also the presentation of specific situations for certain countries

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and regions. In this way, the scientific approach is remarkable and ensures the reader the presentation of regional solutions that can be adapted to other regions.

We are convinced that this book will not only provide readers with relevant information about the twin transition process, solutions for certain challenges, but will also raise questions that can open the way to new research directions considering the astonishing speed with which new technologies enter the lives of citizens. Digitization and industry 5.0 do not only offer solutions that ensure the increase of productivity and results of companies but also challenges and risks are increasingly present in the VUCA world. Predictability is reconsidered in a world in deep change, where black swan events are more and more frequent.

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