



ADVANCED STRATEGIES
IN ENTREPRENEURSHIP,
EDUCATION AND ECOLOGY

ENTREPRENEURIAL RISE IN THE MIDDLE EAST AND NORTH AFRICA

EDITED BY
STAVROS SINDAKIS
SAKSHI AGGARWAL

Entrepreneurial Rise in the Middle East and North Africa

ADVANCED STRATEGIES IN ENTREPRENEURSHIP, EDUCATION AND ECOLOGY

Series Editor: Stavros Sindakis

Titles in Advanced Strategies in Entrepreneurship, Education and Ecology:

Global Opportunities for Entrepreneurial Growth: Competition and Knowledge
Dynamics Within and Across Firms

Stavros Sindakis and Panagiotis Theodorou

Small Business Management and Control of the Uncertain External Environment

*Konstantinos Biginas, Stavros Sindakis, Antonia Koumproglou, Vlasios Sarantinos,
and Peter Wyer*

Entrepreneurial Rise in the Middle East and North Africa: The Influence of Quadruple Helix on Technological Innovation

EDITED BY

STAVROS SINDAKIS

University of Sharjah, UAE

Hellenic American University, USA

Chongqing Technology and Business University, China

AND

SAKSHI AGGARWAL

*Institute of Strategy, Entrepreneurship and Education
for Growth, Cyprus*



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

Emerald Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2022

Copyright © 2022 by Emerald Publishing Limited. All rights of reproduction in any form reserved.

Reprints and permissions service

Contact: permissions@emeraldinsight.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: 978-1-80071-518-9 (Print)

ISBN: 978-1-80071-517-2 (Online)

ISBN: 978-1-80071-519-6 (Epub)



ISOQAR certified
Management System,
awarded to Emerald
for adherence to
Environmental
standard
ISO 14001:2004.

Certificate Number 1985
ISO 14001



INVESTOR IN PEOPLE

Contents

List of Figures	vii
List of Tables	ix
About the Contributors	xi
Foreword <i>Dima Jamali</i>	xvi

Introduction

Chapter 1 The Entrepreneurial Rise and Technological Innovation in the Middle East and North Africa <i>Stavros Sindakis and Sakshi Aggarwal</i>	1
---	---

Section A: Evolution of Entrepreneurial Activities in the Middle East and North Africa

Chapter 2 Four Pillars of Quadruple Helix Innovation Model: An Approach for the Future <i>Sakshi Aggarwal and Stavros Sindakis</i>	9
--	---

Chapter 3 Entrepreneurship Development in Qatar <i>Ahmad Hawi, Farha Al-Kuwari and Christophe Garonne</i>	29
---	----

Chapter 4 Entrepreneurship, Peace, and Institutions in the Middle East and North Africa Region <i>Jay Joseph</i>	53
--	----

Chapter 5 Entrepreneurial Marketing in Jordanian SMEs: Initiatives and Challenges <i>Ghazi Al-Weshah, Dana Kakeesh and Fawwaz Alhammad</i>	67
--	----

Chapter 6 Exploring Youth Entrepreneurship in the United Arab Emirates <i>Stavros Sindakis and Sakshi Aggarwal</i>	93
--	----

Section B: Economic Development and New Business Creation

Chapter 7 The Economic Development of Tourism in the United Arab Emirates
Georgia Papadopoulou 111

Chapter 8 Using Design Thinking to Accelerate Progress Toward the 2030 Sustainable Development Goals in the Middle East and North Africa Region
Paul G. C. Hector 125

Chapter 9 The Impact of COVID-19 Pandemic on Entrepreneurship: Examining the Cases of Egypt, Saudi Arabia, and the United Arab Emirates
Stavros Sindakis and Sakshi Aggarwal 149

Chapter 10 FinTech in the United Arab Emirates: A General Introduction to the Main Aspects of Financial Technology
Fatima Saif Ahmed Kameel Alblooshi 163

Section C: Cultural Influence on Innovation and Information Infrastructure

Chapter 11 Effects of National Culture on Adaptation of Employees to the Innovation in Workplace: The Case of the Middle East and North Africa Region
Zohra Ghali, Khadija Saidi and Arfia Aman 181

Chapter 12 Cultural Influence on Innovation and Entrepreneurship in the Middle East and North Africa
Sakshi Aggarwal and Stavros Sindakis 201

Chapter 13 Innovation Networks and Knowledge Clusters Accelerating Value Creation in the Middle East and North Africa
Nipun Dhaulta 217

Chapter 14 The Analysis of the National Innovation System of the Kingdom of Saudi Arabia
Sotirios Zygiaris 233

Epilogue

Chapter 15 Emerging Influence of Quadruple Helix Innovation Model in the Middle East and North Africa
Sakshi Aggarwal and Stavros Sindakis 257

Index 261

List of Figures

Fig. 2.1.	The Framework of the Quadruple Helix Innovation Theory.	14
Fig. 3.1.	The GEM Entrepreneurship Process (Source: GEM Global Report 2019/2020).	31
Fig. 3.2.	Entrepreneurial Activity in Qatar, 2016–2019 (Source: Qatar APS 2016, 2017, 2018 and 2019).	33
Fig. 3.3.	Societal Attitudes Towards Entrepreneurship in Qatar, 2016 – 2019 (Source: Qatar APS 2016, 2017, 2018 and 2019).	36
Fig. 3.4.	Self-perceptions About Entrepreneurship in Qatar, 2016 – 2019 (Source: Qatar APS 2016, 2017, 2018 and 2019).	38
Fig. 3.5.	Expected Number of Jobs Over the Next Five Years Among Early-Stage Entrepreneurs, 2019 in Qatar (Source: Qatar APS 2019).	40
Fig. 3.6.	The Percentage of TEA with Products or Services and Technology or Process That Are New, 2019 (Source: Qatar APS 2019).	41
Fig. 3.7.	Age Profile of Total Early-Stage Entrepreneurial Activity in Qatar, 2016–2019 (Source: Qatar APS, 2016, 2017, 2018 and 2019).	46
Fig. 3.8.	Experts Rating of the Entrepreneurship Framework Conditions, 2019 (Source: Qatar NES 2019).	47
Fig. 4.1.	The Peacebuilding Role of Entrepreneurs in Conflict Zones.	56
Fig. 4.2.	The Varying Impacts of Entrepreneurs in Conflict Zones.	58
Fig. 5.1.	Jordanian SMEs Contribution to GDP by Sector.	76
Fig. 5.2.	Jordanian SMEs: Employment by Sector.	76
Fig. 6.1.	Youth Unemployment by the Regions (Taken from IMF Data).	103
Fig. 6.2.	The UAE Sales in the Years 2015 and 2022.	104
Fig. 8.1.	A Six-Stage Design Thinking Model.	128
Fig. 8.2.	The UN’s 17 2030 Sustainable Development Goals (UN, 2020).	130
Fig. 8.3.	Countries Where Respondents Were Located (Most Have a Regional or International Mandate).	132
Fig. 8.4.	Respondents to the Questionnaire by Organization Type.	132
Fig. 9.1.	Opportunity for Innovation and Entrepreneurship Under COVID-19.	159

viii List of Figures

Fig. 13.1.	Knowledge Management Process Operating Through Knowledge Clusters and Innovation Network Contributing to a Knowledge-Economy.	221
Fig. 14.1.	The GII Index of KSA Against Leading Countries on Innovation.	238
Fig. 14.2.	GII Performance Among the GCC.	239
Fig. 14.3.	GII Performance Among Countries with Similar Levels of Allocated Resources for Innovation.	239
Fig. 14.4.	GII Innovation Pillar Performance Among GCC.	240
Fig. 14.5.	GII Innovation Pillar Performance Among Countries with Similar Level of Innovation Input.	241
Fig. 14.6.	GII Innovation Pillar Performance Among Countries with Leading Performance.	241
Fig. 14.7.	KSA's Performance in Doing Business (World Bank Index, 2018).	242
Fig. 14.8.	GII Institutions Pillar Performance for KSA.	243
Fig. 14.9.	Comparative R&D Spending on GDP for the Year 2018.	245
Fig. 14.10.	The Research Node of KSA's NIS.	245
Fig. 14.11.	Human Capital and Research GII Indicators for KSA.	248
Fig. 14.12.	The Innovation Node of KSA's NIS.	249
Fig. 14.13.	The IPR Performance of KSA.	250
Fig. 14.14.	The Commercialization Node of KSA's NIS.	252
Fig. 14.15.	The Commercialization Outputs of the KSA's NIS.	253

List of Tables

Table 3.1.	Entrepreneurship Activity Rate in the MENA Region, 2019.	34
Table 3.2.	Societal Attitudes Towards Entrepreneurship in MENA, 2019.	36
Table 3.3.	Self-perceptions About Entrepreneurship in MENA, 2019.	38
Table 3.4.	Reason for Starting Your Business (%TEA) in Qatar, 2019.	42
Table 3.5.	Various Stages of Entrepreneurship Activity in Qatar, 2019.	43
Table 3.6.	Entrepreneurship Activity by Age Group in Qatar, 2019.	45
Table 3.7.	Entrepreneurship Activity by Level of Education Qatar, 2019.	47
Table 3.8.	Experts Ratings of the Entrepreneurial Framework Conditions, 2018–2019.	48
Table 5.1.	Jordan Entrepreneurial Activities.	74
Table 5.2.	Classification of Jordanian Business Ventures According to the Business Size.	75
Table 14.1.	KSA's Research Programs Under the NSITP.	246
Table 14.2.	The Ranking of Human Resource Capacity of KSA.	247

This page intentionally left blank

About the Contributors

Ms. Sakshi Aggarwal is a Teaching and Research Assistant, and she has received her Master's degree in Business Administration, with specialization in Human Resource Management and Marketing from the Himachal Pradesh University in Shimla, India. My interests lie in various areas of management, especially Entrepreneurship, Innovation, and Marketing Strategy. She has participated in SMS India Special Conference at Indian School of Business, Hyderabad, India. She has further contributed to many research and teaching tasks in collaboration with his academic mentor, Dr. Stavros Sindakis.

Ghazi Al-Weshah is a Professor of Marketing and Director of Jordanian- Korean Center for ICT and CEO for Al-Balqa Academy for Electronic Services at Al-Balqa Applied University-Jordan. He has experience in teaching, training, and consultations with local and international organizations. He was awarded his PhD in Marketing from The University of Wales, UK in 2010. He has published about 27 research papers in marketing and management in international refereed journals. Major research interests are CRM, TQM, E-Marketing, Bank marketing, Healthcare marketing, and SMEs marketing. He can be connected at Ghazi.al-weshah@bau.edu.jo

Farha Al-Kuwari is the Manager of Data Management and Research Department at Qatar Development Bank. She holds a Bachelor's degree in Statistics from Qatar University, an MSc in Applied Statistics from the University of Oxford, UK, and an MPhil in Statistics from University College London (UCL). Her research interests are: Multivariate techniques, Big Data, Predictive Modeling and Entrepreneurship.

Prior to joining QDB, she worked as a Lecturer of Statistics at University of Qatar for 11 years and worked as a Statistics Researcher in the Statistics and Planning Authority.

During her work at Qatar Development Bank, she managed a number of strategic programs and projects, including: Small and Medium Enterprises Development Strategy, Data Strategy and Governance. She is the Qatar Team Leader for Global Entrepreneurship Monitor (GEM).

Fatima Saif Ahmed Kameel Alblooshi is an Undergraduate Student who is completing her Bachelor of Science in Finance at the University of Sharjah in the United Arab Emirates. She aims to continue her postgraduate studies and pursue a Master of Arts in Online Education Leadership and Management. She has been one of the high school top and best national achievers in the school year 2016–2017 with the seventh rank in the whole country and the first rank in Sharjah. She is one of the

top students in the college of Business Administration with a constant GPA of 4 over her study years in the University. Her academic interests include Entrepreneurship, Leadership, Islamic Finance, Microfinance and FinTech. She participated in the authorship of this book, which is her very first published academic work.

Fawwaz Alhammad is an Associate Professor of Tourism Marketing at the Business Department, the Amman University College of financial and administrative Science, Al-Balqa Applied University, Jordan. He was awarded his PhD in Tourism Marketing from Coventry University, UK. In 2007, he has published several research papers in the field of Tourism and marketing in international refereed journals. His research interests are local community empowerment and involvement in Tourism, SMEs Marketing, Tourism Research Methodologies, Branding, E-marketing, and Cross-Cultural Differences.

He has supervised and examined many MBA dissertations in different marketing and management areas and has conducted peer-review activities in many international refereed journals and conferences. He had worked as an instructor in business and marketing for over nine years. He has excellent academic skills and experience in Business Administration and Marketing in the UK and Jordan. He is an effective and successful communicator, combined with active listening skills, who enjoys establishing positive relationships with a wide variety of people from all backgrounds and cultures, a committed and hard professional worker who is passionate about what he does. He achieved several goals and targets and high-quality consultation services in tourism, marketing, and training for various businesses at national and international levels.

Arfia Aman earned PhD (Economics) in 2014 from the University of Lucknow, India. She is currently working as an Assistant Professor, Finance Department, College of Administrative and Financial Sciences Saudi Electronic University, KSA. She has authored a book and various articles in reputed journals presented papers in national and international seminars, conferences, and symposia.

Nipun Dhaulta is a Research Scholar pursuing a PhD in Management from the Central University of Himachal Pradesh. After completing the MBA degree with a specialization in marketing and human resources, she worked as a Research Associate at the Institute of Strategy, Entrepreneurship, and Education for Growth (iSEEG), Cyprus. Her keen interests lie in exploring and gaining a deeper understanding of entrepreneurship, marketing and education.

Christophe Garonne is a Professor of Entrepreneurship and Strategy at Kedge Business School, France. He is also the Academic Director of the Kedge Business Nursery and Accelerator and the Director of the Research Centre for Innovation & Entrepreneurship.

He received his PhD from the Australian Centre of Entrepreneurship Research at Queensland University of Technology in Australia. He has spent most of his career internationally, especially in the Asia-Pacific zone in both public and private sectors. Before joining Kedge, he created and managed two incubators for an international business school in Lille & Paris, France. He advises regularly for

small and large international firms on their innovation strategies and their entrepreneurial behaviors. His research interests are centered around the emergence of both imitative and innovative new ventures. Excerpts of his research outcomes can be read in *The Harvard Business Review* and other journals.

Zohra Ghali-Zinoubi completed a PhD in Marketing from Faculty of Economic Sciences and Management of Tunis (University Tunis El Manar) in Tunisia. She is now Associate Professor in management and marketing in Saudi Electronic University. She taught and coordinated several courses in e-commerce, marketing, HR, and management sciences in Higher Institute of Management of Tunis and Saudi Electronic University. She has supervised and examined many MBA dissertations and research projects in different marketing and management areas. She is also researcher in marketing and author of more than twenty scientific articles published in highly ranked journals. Her research interests especially include consumer behavior, green consumption, food and technology, and e-commerce. She is a trainer in communication marketing and commercial negotiation, and consultant in digital marketing. She has conducted peer-review activities in many international refereed journals and conferences.

Ahmad Hawi is the Head of Data Analytics and Governance at Qatar Development Bank, with more than 15 years of work experience in predictive modeling, multivariate statistical analysis, time series analysis, complex survey design and analysis, and high dimensional data analysis. He holds a Master's degree in Statistics from University of Versailles Saint-Quentin-en-Yvelines (UVSQ). He is currently a DBA candidate at the Dauphine University – France. He is a team member for Qatar National Team for The Global Entrepreneurship Monitor (GEM).

Paul G. C. Hector is the Advisor for Communication and Information in UNESCO's Regional Bureau for Sciences in the Arab States. He joined UNESCO through its competitive Young Professionals Program. Over the course of his UNESCO career, he has supported project initiatives and policy actions in Africa, Latin America, and the Caribbean, Asia-Pacific, and the Middle East that through research, the design and implementation of policies, strategies, and action plans have promoted access to information and knowledge for development and overcome related inequalities, particularly on digital networks. These initiatives have sought to address information and knowledge divides linked to issues such as gender, language, literacy, island/rural living, and disability.

Initially trained as a civil and structural engineer, he holds doctoral degrees in Management Science as well as in Knowledge & Innovation Management. Since 2012, he has been actively engaged in the United Nations University's annual international conference on the Theory and Practice of Electronic Governance (ICE-GOV) as a Track Chair, paper reviewer, and member of its International Steering Committee. Paul is also an Associated Researcher at the Laboratory for Innovation, Technology, Economic and Management (LITEM) in the Mines Telecom Institute Business School at the University of Paris-Saclay in France and the Institute for Knowledge and Innovation South-East Asia (IKI-SEA) at Bangkok University in Thailand. He occasionally reviews papers for journals in his fields of expertise. He

has authored book chapters, conference and journal papers, developed courses, and lectured in international business schools. His research interests lie in the areas of knowledge-based development, urbanization, innovation, and entrepreneurship.

He is an alumnus of the J. William Fulbright Fellowship and US State Department International Visitor Leadership Programmes).

Jay Joseph (Assistant Professor, American University of Beirut) is a Humanitarian-Academic whose research focuses on Entrepreneurship, Poverty Reduction, and Peacebuilding. In 2018, Jay established the award-winning Business-in-Conflict Research Group (BICAR), which hosts over 95 members and 30 affiliate researchers, and is leading the world on the role that entrepreneurship can play in reducing poverty and fostering peace in conflict and post-conflict settings. The group has won several recognitions including the 2020 AACSB Innovations that Inspire award, 2019 Best Paper at the ICSB World Conference, and whose work was included in the 75th UN General Assembly Report on Business and Human Rights (from Joseph et al., 2020). In addition to publishing in ABDC ranked and FT Top 50 journals, Jay has raised over \$191,000USD in funding for his work, and collaborates extensively with several UN Agencies such as the United Nations Industrial Development Organization (Iraq and Lebanon) and the International Organization for Migration (Iraq), generating reports on how to improve business-based livelihood programs in conflict zones. In addition to being the Director of the BICAR group, Jay serves as an advisor to several NGOs including Allisar (France), and Bring Hope Humanitarian Foundation (Sweden).

Dana Kakeesh is an Assistant Professor of Marketing at The School of Business, University of Jordan, Jordan. Also, she served as an Assistant Dean for Development and Quality Assurance for the academic years of 2017 and 2018. She started her academic career in 2008 as a Research and Teaching Assistant at the Department of Marketing, at the same school before moving to the UK in 2011, where she has received her PhD from the York Management School, the University of York in 2016. Her research interests are services marketing, entrepreneurial marketing, and digital marketing. She can be connected at dana.kakeesh@ju.edu.jo

Georgia Papadopoulou is an Assistant Professor of Economics and Project Management at Al Ghurair University in Dubai, United Arab Emirates. She received a BSc degree in Maritime Studies from the University of Piraeus (2006), Greece, MBA in Operations Management from the University of the Aegean (2009), Greece, an MSc in Tourism Business Administration from the Hellenic Open University (2012) and PhD degree in Tourism Economics from the University of Piraeus (2015), Greece. She is teaching courses in Economics, Project Management and Operations Management. Her research and teaching interests include tourism economics, tourists' behavior, and tourism management. She has published papers mainly focused on cruise tourism, spa tourism, terrorism and tourism in international journals and chapters in books focused on cruise experience and gender equality on the tourism sector. She has also presented her work in international conferences in the area of tourism economics and management in Greece, Portugal, Cyprus, Indonesia, and Thailand.

Khadija Saidi earned a PhD (Marketing) in 2015 from the Higher School of Commerce, Tunisia. Currently, she is an Assistant Professor, Business Administration Department, College of Administrative and Financial Sciences, Saudi Electronic University, KSA. In addition, she is a researcher in marketing and author of several scientific publications.

Dr Stavros Sindakis is an educator, advisor, and mentor in the areas of business innovation, knowledge and technology management, entrepreneurship, and product design and development. As an educator, he has taught in several different countries at the undergraduate and postgraduate levels, and has held a variety of advisory and mentoring positions for both students and faculty at numerous schools including the University of Liverpool, University of Roehampton London, American University in Dubai, University of Sharjah, Bangkok University, and New School of Architecture & Design. He is also a Visiting Scholar at Chongqing Technology and Business University, and Visiting Professor at the Hellenic Open University. With a PhD in Strategy, Enterprise & Innovation from the University of Portsmouth, Dr Sindakis has made significant contributions to these fields through his research and publications on entrepreneurship and business innovation, with his fifth book in progress. He currently holds the positions of Director of Business Programs and Assistant Professor of Entrepreneurship and Innovation Management at Hellenic American University.

Sotirios Zygiaris is the Chair of the Business Administration Department at Prince Mohammad Bin Fahd University (PMU). His area of specialization is Business Digital Transformation working with ecommerce and business intelligence applications. He is a Certified Digital Marketing Professional by Google. He received his PhD in the area of Management of Innovation from Aristotle University, and his main degrees received from Lamar University in Texas, USA in Computer Science (BSc) and MIS (MSc). He is also a Faculty at the University of Sheffield and University of Maryland College. He is a European Commission expert in smart cities. His main research area is smart cities – smart specialization.

Foreword

Dima Jamali

It is a pleasure to write this Foreword for an important new volume on “The Entrepreneurial Rise and Technological Innovation in the Middle East and North Africa.” This book could not be more timely, as the Middle East and North Africa (MENA) region is on the verge of a potential entrepreneurship gold rush as per the most recent McKinsey report on the topic (Alkasmi, El Hamamsy, Houry, & Syed, 2018). An average of 94% of the MENA region population own a smart phone and 88% are connecting online on a daily basis (Alkasmi et al., 2018), yet some key digital sectors remain under-developed, and entrepreneurship potential remains largely untapped. For example, across MENA, only 8% of Small and Medium Enterprises (SMEs) have an online presence (10 times less than in the United States) and only 1.5% of MENA’s retail sales are online (5 times less than in the United States) (Elmasry, Barnickel, Dib, & Bansal, 2016). A study by Digital McKinsey showed that the Middle East has in fact realized only 8% of its overall digital potential, compared with 15% in Western Europe and 18% in the United States (Elmasry et al., 2016). However, the region has very good prospects as we look ahead given that it is experiencing a steady growth in both the number of successful start-ups and the amount of investment funding available to them (Alkasmi et al., 2018).

There is little doubt that entrepreneurship and innovation will significantly shape the future of the MENA region, and will have a multiplier effect on the economy. A recent research on economic recovery and revitalization in MENA suggests that for every 10 new successful enterprises, valuations increase to more than \$1.4 billion, opening up to 2,500 jobs opportunities (Endeavor Insight, 2016). Hence, the potential for scale up is immense and entrepreneurship constitutes a key engine for the economic transformation of this under-studied region, that is home to a population of more than 430 million people with an average GDP of USD 2.8 trillion (Alkasmi et al., 2018). MENA is projected to exhibit real GDP growth in the coming years, exceeding \$4.0 trillion in GDP value by 2025 (Dobbs et al., 2011). Also the largely youthful population of this region is likely to contribute to continued economic growth, and sustained and impactful entrepreneurial innovations. Approximately 60% of the overall MENA population is under the age of 30, while 30% falls within the 15–29 age bracket (United Nations Development Programme. Regional Bureau for Arab States, 2016). We expect these young people to fuel the rapid expansion of the digital sector in the

coming years and this most certainly bodes well for real digital transformation. Yet at the time of the compilation of this book volume the region has in fact realized less than 10% of its digital potential.

There are also important disparities that need to be addressed based on the **GEM 2017 MENA Regional Report**, which draws on data from the 2015 and 2016 GEM national surveys. For example, it is important to address the gap between intending and active entrepreneurs. The number of total early-stage entrepreneurs in the MENA region is 70% lower than the number expressing entrepreneurial intentions. Along the same lines, a recent survey has shown that more than half of MENA region adults believe in themselves to have the required skills, knowledge, and experience to start their own business and that expectations are increasing as far as entrepreneurship and employment are concerned (Bosma et al., 2020). Hence addressing the gap between intentions and materialization is certainly important. Additionally, it is important to provide a supportive ecosystem and to strengthen its different components across the value chain, given that the MENA region had the lowest rate of established entrepreneurs compared to other regions (6.8%) and a high rate of business discontinuance at 6.2% (GEM 2017 MENA Regional Report). As important if not more critical is the need to address gender disparity which is a persistent concern in this region. For example, women in the MENA region were only half as likely to be engaged in Total Entrepreneurial Activity (TEA) as their male counterparts, according to GEM 2017 MENA Regional Report. This is despite the fact that in six of the nine MENA countries surveyed, women entrepreneurs were more likely to be motivated by opportunity than men. This puts them on a par with female entrepreneurs in Europe and suggests that developing women entrepreneurs is a key priority for the MENA region going forward.

It is important to end this Foreword with relevant policy recommendations, some of which are aptly captured in this volume. There is a need on one hand to dedicate more attention to school level and university level entrepreneurship education (Ismail, Schott, Herrington, Kew, & de la vega, 2017). There is also a need for supportive and dynamic government policy focusing on creating a nurturing business environment for entrepreneurship that minimizes bureaucracy, taxes and market burdens or entry regulations (Alkasmi et al., 2018). There is also a need to for broader structural policies to provide financing and scale up investments to build an investment ecosystem that can accelerate the unlocking of the real potential of entrepreneurship in MENA. Up till now, the region has been shaped by mostly conventional business funding, and there is insufficient funding directed to support entrepreneurship, with venture capital (VC) worth only 0.03% of MENA GDP in 2018 (Makki & Rizk, 2019). This new volume edited by Stavros Sindakis and Sakshi Aggarwal makes an excellent contribution in this regard by examining emerging patterns, factors, triggers, catalysts, and accelerators to innovation, and their impact on future research, practice, and policy. As importantly this new volume touches on best practices to nurture innovation and entrepreneurship in this region, including the need for bolder entrepreneurship education and preparation across schools and academic institutions. The editors aptly point out that the coming of entrepreneurship age in the MENA region will hinge on the right enabling environment to support investor financing, growth,

and value creation. They suggest that to unlock the start-up system, both private and public investors must play an active role and take deliberate and concerted actions regarding investment scale, governance, and performance management in addition to networking and nurturing a growth mind-set. It is important to note in closing that the recent surge of Covid-19 and working from home has actually promoted a wave of innovation and new business start-ups (Sneader & Singhal, 2021) and the services offered by mobile technology generated 5.7% of GDP in MENA this past year alone, providing \$244 billion of economic value (GSMA, 2020). Hence despite all the challenges that are captured in this volume, there is hope for a brighter future, and there is no doubt that we need to channel more energy to support all facets of entrepreneurship and innovation in MENA, and this new volume compilation is likely to be a useful guide in this direction.

References

- Alkamsi, A. J., El Hamamsy, O., Khoury, L., & Syed, A. (2018). Entrepreneurship in the Middle East and North Africa: How investors can support and enable growth. *Digital McKinsey*.
- Bosma, N., Hill, S., Ionescu-Somers, A., Kelley, D., Levie, J., & Tarnawa, A. (2020). *Global Entrepreneurship Monitor 2019/2020 Global Report*. Retrieved from <https://www.c4e.org.cy/reports/2019/gem-2019-2020-global-report.pdf>
- Dobbs, R., Smit, S., Remes, J., Manyika, J., Roxburgh, C., & Restrepo, A. (2011). Urban world: Mapping the economic power of cities. *McKinsey Global Institute*, 46(March). Retrieved from <http://www.mendeley.com/research/urban-world-mapping-economic-power-cities/>
- Elmasry, T., Barnickel, N., Dib, H., & Bansal, A. (2016). Digital Middle East: Transforming the region into a leading digital economy. *Digital McKinsey*, 10(October), 1–66.
- Endeavor Insight. (2016). *Entrepreneurship in the Middle East: The time is now*. Entrepreneurship Ecosystem Insights. Retrieved from <http://www.ecosysteminsights.org/entrepreneurship-in-the-middle-east-the-time-is-now/>
- GSMA. (2020). The mobile economy MENA. *GSM Association*.
- Ismail, A., Schott, T., Herrington, M., Kew, P., & de la vega, I. (2017). Global entrepreneurship monitor founding and sponsoring. *Global Entrepreneurship Monitor (Gem), MENA Region Report*. Retrieved from <http://www.gemconsortium.org/download@file>
- Makki, M., & Rizk, M. (2019). Building (and boosting) an ecosystem. *Entrepreneur ME*. Retrieved from <https://www.strategyand.pwc.com/m1/en/articles/2019/building-and-boosting-an-ecosystem.html>
- Sneader, K., & Singhal, S. (2021). *The next normal arrives: Trends that will define 2021 – and beyond*. McKinsey. Retrieved from <https://www.mckinsey.com/featured-insights/leadership/the-next-normal-arrives-trends-that-will-define-2021-and-beyond>
- United Nations Development Programme. Regional Bureau for Arab States. (2016). *Arab Human Development Report 2016: Youth and the prospects for human development in a changing reality*. Retrieved from <http://www.arabstates.undp.org/content/dam/rbas/report/AHDR Reports/AHDR 2016/AHDR Final 2016/AHDR2016En.pdf>