Preface

This book addresses the role of Information and Communication Technologies (ICTs) as a form of advanced technologies in promoting social and economic coordination of activities at the levels of individuals, groups, organizations, and countries. A major focus is placed on the coordination benefits that take place between education, health, and other socioeconomic areas. The regional and national contexts for the empirical applications pursued are based on South Mediterranean Countries (SMC) with a focus on the Middle East and North Africa (MENA) and Arab economies.

The production and publication of this book is motivated by the increasing rate of convergence between technologies, economics, and social sciences in general. This book is devoted to showing how the new technologies and mainly ICTs play promising roles in accounting for both fragmentation and coordination and thus ensure further and enhanced coordination. Interdependencies and their implied coordination have been increasingly developing with the higher number of players, institutions, markets, as well as the large array of new needs. These trends are related to the increased globalization, the development of networks, and the multiplication of interdependent platforms. This motivation is related to the beliefs that are held by individuals and groups in relation to the daily interdependencies in which they live and also the large array of needs of and from others. Can these daily requirements be expressed and revealed at the aggregate levels of economies and regions? Can the available data reveal the importance of interdependencies? How could this exercise be conducted while focusing on health, education, and socioeconomic conditions? How can these elements enrich economic and social policies, and how could coordination be enhanced? What about specific world regions? What roles can be played by new technologies, including ICTs? How could the findings be used to enhance the overall understanding of interdependencies and coordination with a focus on local, national, and regional development?

POTENTIAL USERS OF THIS BOOK

Based on the above motivations and related series of questions, it appears that different types of uses and users can be predicted for this book.

Besides universities and research centers, public, private, and nongovernmental agencies can find helpful elements and issues in this book. As with the convergences discussed above, engineering and business students and other scholars willing to investigate the frontiers of their own fields are also targeted. Quantitatively oriented scholars and students as well as those that require more qualitative arguments may find promising pieces, methods, and empirical evidence in this book. The empirical content of each chapter and of the overall book is also attractive for policy makers at both national and
international levels. General and university libraries may acquire copies for their community of readers and users of promising material. While countries in of the South Mediterranean countries, MENA, and the Arab region are specifically targeted, other economies could be interested in acquiring copies of this book. This is also an interesting addition to the knowledge base about Arab countries, even though this is not explicit from the book’s title.

I do also recognize the need for such a book in the FEMISE network and its 80 institutes and research centers that have been generating a climate of scholarship and devotion to theoretical and applied questions that concern the Mediterranean area. Besides FEMISE, the Economic Research Forum (ERF), as it pursues complementary objectives and tasks, may identify the pertinence of the book.

I identify on the same occasion, universities in the Mediterranean region and outside it, where students and faculty are, on daily basis, struggling to further the frontier of knowledge. International organizations, as they are devoting efforts to promote research and development in different areas with a focus on human development, health, education, and socio-economic conditions, may find this book useful. These include organizations related to the United Nations in areas of food and agriculture, health, education, commerce, and development. The World Bank, the International Monetary Fund are seen as major and potential users of this book. As nongovernmental agencies, both at national and international levels, are largely discussed in the book chapters, they are also identified as major users that would benefit from access to the present book.

GENESIS OF THIS BOOK

As said earlier, there are trends in sciences and in development practices that push towards accounting for convergence between disciplines and sectors of the economy. When convergence imposes itself to a specific discipline and to a narrower area of knowledge, it often creates needs for investigations at the boundaries of the domain, generating interferences with other scientific areas. These scientific interdependencies lead to mutual enrichment and create material that could be of high benefit to scientific communities and developers.

The current book is generated in relation to the development of scientific convergence, to interdependencies, and to the multidisciplinary academic tradition as described in this short introduction. The genesis of this book relates initially to a simple research proposal submitted to FEMISE (Foundation of Euro-Mediterranean Institutes of Economic Sciences). The original proposal emphasizes the analysis of the relationships between health, education, and socioeconomic outcomes in the context of South Mediterranean Economies with a focus on economic and social policies, under the title of “Interdependencies of Health, Education, and Poverty with Policy Implications for Southern Mediterranean Countries.” This led to the production of a scientific FEMISE report FEM-32-01, published in 2009.

This process was followed by a new competition launched in 2011 under “FEMISE Edited Volumes,” where authors and FEMISE members were invited to submit proposals for producing books based on FEMISE scientific reports. My proposal to this competition was that FEM-32-01 could be a good basis for generating a book emphasizing health, education, and socioeconomic outcomes. Winning this competition with financial support from FEMISE led to a discussion with IGI with a final arrangement attained for a new book: *ICTs for Health, Education, and Socioeconomic Policies: Regional Cases*. This means that the new book needs to account for Information and Communication Technologies (ICTs)
with a focus on interdependencies and coordination. Most of the work consisted of introducing the role and impacts of ICTs to the initial FEMISE scientific report FEM-32-01. Major transformations were then undertaken along with a large set of additions to ensure that the new topic is covered. It took a lot of time to add chapters, sections, and to establish the functional links needed for transforming the initial material. This resulted in a transformation of the initial document where most of the core features of FEM-32-01 are kept and updated to remind the reader of the initial report. Viewing coordination of health, education, and socioeconomic outcomes with the lens of ICTs has generated new needs for further understanding of coordination.

SCOPE OF THE BOOK

Coordination has been an important issue, at least in the social sciences, even though individuals and different organizations have been practically involved under one form or another in coordinating their activities. The development of different types of Information and Communication Technologies (ICTs) has played an important role in coordinating operations at different levels of organizations and governments. Such interconnections and the need for coordination is imposed by economic and social factors and driven by needs of individuals, groups, and organizations.

In opposition to coordination, fragmentation and scattered operations are often found to produce inefficiencies and thus lead to higher private and social costs. Some areas are interdependent, and lack of knowledge implies a lack of benefits from limited coordination. This happens when individuals, groups, and organizations are ignorant about the interdependencies existing between at least two areas of interest. This can be, for example, a situation where the effects of nutrition, education, and health are not known or ignored. At the level of a government, the ministry of health may not coordinate enough with the departments of education and social affairs. This leads to inefficiencies as some social benefits will not be utilized or possibly eliminated because of the absence of coordination. Similar examples can be provided in relation to the same sectors of health, education, and economic activities. They do generally have a series of components that need to be coordinated. Issues such as the economic and social problems related to the youngest segments of the population and matters related to the needs and situation of women provide more incentives for coordination. Research itself can benefit from further coordinated networks to produce higher outcomes in most cases. Technologies that are either specific or general can favor coordination, and ICTs are the best examples of drivers and engines for the enhancement of social benefits. There are of course major variations across countries and sectors, but the trend taking place appears to be promising in the sense of accruing benefits, ensuring coordination, and producing higher prospects.

LIMITATIONS OF THE BOOK

There are of course several limitations that still exist in relation to the issues raised in this book. Most of these limitations are linked with the multidisciplinary nature of the topics raised. In addition, the data used does not often cover recent years and is limited to covering up to 2006 and 2008 at best. Only a few chapters use recent data, covering 2010 and 2011. As ICTs develop and promise new instruments
for coordination, some of the detailed benefits are not discussed, but readers are often invited to imagine
the expected gains either for specific sectors or in general from the overall effects and impacts of the
larger category called ICTs.

However, my hope is that these limitations lead to further investigations and research in some specific
niches that are left untouched in this book.

ORGANIZATION OF THE BOOK

This preface introduces some conceptual and organizational matters devoted to showing the logic and ap-
proaches pursued throughout this book and its chapters. As explained in most of the chapters, the current
book is written by an Applied Economist, who has been exposed to different interrelated developmental
economic issues. These include the interdependencies between health, education, and economic factors
as dimensions that require further policy coordination. In this sense, economic, social, and political
transversal coordination and policies can have superior outcomes in comparison with sector-based poli-
cies. This also accounts for the progress taking place in technologies with the amazing role of Informa-
tion and Communication Technologies (ICTs). Such technologies include not only telecommunication
components but also the software and all the advances made in media and communication. The book
attempts to discuss the above issues in the context of developing countries, but the accumulated infor-
mation allows for further focus on South Mediterranean Countries (SMC). Within this context, North
African and Middle Eastern (MENA) countries and more specifically the Arab countries are most of
the time the countries chosen for illustration and representation of regional cases.

The above components constitute the core of the present book. Coordination, health, education, and
economic outcomes form the most essential pillars discussed. In addition, ICTs are largely considered
to show the high potential offered by the coordination of policies. The context of South Mediterranean
Countries (SMC), MENA, and Arab countries is used interchangeably (depending on the availability of
data and information) for regional applications.

STRUCTURE AND ORGANIZATION OF THE BOOK

The book is organized in three interdependent sections:

- **Section 1**: Fragmentation, Interdependencies, and Assessments
- **Section 2**: Interdependencies and ICTs per Sector
- **Section 3**: Socioeconomic Issues and Policies

These three sections are interdependent and devoted to guiding the reader in choosing the dimensions
needed for the investigation and perusal of the role of ICTs and other related issues.

As indicated, the first section focuses on the introduction of the concepts, strategies, and applica-
tions to countries from the selected region. By the end of this section, the reader gains knowledge about
fragmentation, coordination (chapters 1 and 2) and related models for assessment (chapter 3). The reader
also becomes more familiar with the complexity of the analysis of interdependencies and the require-
ments for the mobilization of advanced software in these operations (chapter 4).
The second section has focuses more directly on the use of ICTs in coordinating health (chapter 5), education (chapter 6), women empowerment (chapter 7), and poverty alleviation (chapter 8). These presentations are more illustrative of the roles played by ICTs within the context of coordination of health, education, and economic outcomes. This prepares for the opening of some thematic discussion in relation to the interdependencies of health, education, and poverty. This is the central topic covered in section 3.

The third section of this book deals with special matters and socioeconomic policies that are in connection with the interdependencies and coordination as discussed in the two first sections. Chapter 9 introduces a framework that applies to the coordination of interdependent sectors. Social deficits, social cohesion, ICTs, and MDGs are, respectively, in chapters 10 and 11. Chapter 12 discusses the effects of risks on interdependencies and the implied socioeconomic policies. Chapter 13 is a concluding chapter that gathers most of the findings from the previous sections with a focus on the necessary strengthening of socioeconomic policies.

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