ICTs in Developing Countries
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ICTs in Developing Countries

Research, Practices and Policy Implications

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To my parents Chitta Ranjan Dey and
Sukti Dhara Bhowmick Dey and
my wife Aditi Dey
Bidit Dey

To my parents Fathy and Nadia and
my wife Mahinour
Karim Sorour

To my family
Raffaele Filieri
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Preface

It has been suggested that the use of ICTs (Information and Communication Technologies) can provide developing societies with access to information and thereby contribute to their welfare. Hence, it is becoming increasingly important to understand the adoption, use and subsequent impact of ICT in developing societies. The topicality of this issue has drawn significant attention from researchers and practitioners leading to a wealth of scholarly works in this field. However, there is a dearth of literature that corroborates multi-disciplinary perspectives in order to achieve a holistic understanding. Accordingly, this book aims to address two major deficiencies in current scholarly work – a lack of multi-disciplinary perspectives to the topic and the shortage of literature discussing cases and evidences from various developing societies. Addressing these gaps in the extant literature, this monograph aims to achieve the following benefits for researchers and practitioners:

1. To be able to appreciate various theoretical and disciplinary perspectives towards ICT deployment for development studies.
2. To be able to identify and assess the dynamics and kinetics of ICT adoption, use and resulting impacts in developing societies.
3. To be able to critically evaluate the advantages and challenges of using ICTs in developing societies.
4. To be able to analyse the use of ICTs from a global perspective paying particular attention to cultural and contextual variables and peculiarities in different societies.
5. To draw the relevant policy implications for commercial and not-for-profit entities in developing societies.

With a view to achieving the aforementioned outcomes, this monograph aims to critically assess the adoption, use and impacts of various forms of ICTs in developing societies in light of relevant conceptual underpinnings and practice-based case studies. Considering the paucity of such literature in this field as stated above, this book offers a rich and cogent examination of digital divide and ICT for development which is of benefit to a wide-ranging audience from both academia and practice. The book brings together a team of contributors of international
standing to discuss and analyse the successes, difficulties and paradoxes of ICT use in developing countries and complements the current knowledge in this field. Considering the multifarious nature of this research stream, we have included academics from a wide range of disciplines such as business management, law, information systems and social science. Hence, the content of the book is expected to have a rich diversity both in terms of contextual information and disciplinary perspectives.

In achieving the aforementioned benefits, the book is divided into the following main themes:

- Key theories and concepts pertaining to ICT for development studies.
- Challenges of using ICT in developing societies.
- Benefits and impact of using ICT in developing societies.
- Practical imperatives for ICT-enabled development projects, government organisations and commercial entities.
- Contribution to policy formulations.

The book has three major sections, namely,

Section I: Conceptualising digital divide and ICT for development: critical evaluation of some of the key theories and concepts used to conceptualise ICT for development

Section II: Dynamics and kinetics of the adoption, use and appropriation of ICTs in developing societies: cases from around the world.

Section III: Policy and practitioner implications.

Section I  Conceptualising digital divide and ICT for development

This section comprises two chapters. Bidit Dey and Faizan Ali offer a critical review of academic literature and project reports to argue that a bottom-up approach to ICT intervention in developing countries would be more effective. They also highlight the importance of contextual understanding and socio-cultural appropriation of ICT applications and projects in this regard. The authors postulate that the newly emerged bottom-of-the-pyramid (BOP) marketing concept could be juxtaposed and linked with ICT for development studies to encourage more private sector and commercial initiatives to support the ongoing public sector and donor-driven not-for-profit endeavours. This in particular could be a significant development to overcome the sustainability problems
encountered by many ICT-led projects which often also fail to make a balance between development initiatives and entrepreneurial pursuits. The other chapter in this section by Sanjay Bhowmick identifies and analyses structuration theory as a major conceptual construct for ICT for development research stream. This chapter echoes the tone of the first chapter by highlighting the importance of understanding and considering social structures and systems during the design and implementation of ICT-led projects. While the use of structuration theory is increasingly becoming popular in wider ICT for development studies, the discussion by Bhowmick enriches and reinforces the concomitant theoretical underpinnings.

Section II  Dynamics and kinetics of the adoption, use and appropriation of ICTs in developing societies

In light of the conceptual underpinnings constructed in the first section, this section identifies and analyses the dynamics and kinetics of technology adoption in developing societies. While some fascinating examples of successful technology adoption and subsequent impact of socio-economic practices are presented in this section, the paradoxes, difficulties and challenges in those initiatives are also discussed in greater detail. Hillol Bala, Akshay Bhagwatwar and Moshtaq Ahmed in their contribution offer a useful insight into the use of ICT in organisational context in the Kingdom of Swaziland. Cultural factors influencing Chinese consumers’ adoption of smartphones have been critically assessed by Raffaele Filieri. The success stories of some ICT-led interventions and concurrent challenges in the South African context have been examined by Liezl Coetzee. A co-authored chapter by Bidit Dey and Ben Binsardi take us to the issues pertaining to remote Bangladeshi villages where farmers’ use of mobile telephones were monitored and analysed. This section also sheds light on organisational and communal use of ICT and resulting impacts. However, ICT’s contribution to development goes far beyond facilitating economic and agricultural activities. The use of social media in framing people’s democratic practices and creating opportunities for the freedom of speech is becoming a topical issue in both developed and developing societies. Faheem Hussain and his colleagues present a case study on political microblogging in Bangladesh to highlight the actual and potential impact of ICT in shaping a people’s movement. The chapter also critically examines the regulatory frameworks that have significant ramifications on the actual use and impact
of ICT. The fact that the fragile infrastructural and controversial regulatory structure can potentially impede ICT-led projects’ successes is further emphasised by Meera Sarma in her chapter that also weighs the potential of open source software in the Indian context.

Section III  Policy and practitioner implications

This section provides future directions and policy implications for both private and public sector initiatives. Based on secondary data, Anupam Das, Syeed Khan and Murshed Chowdhury offer a comparative analysis between two Asian countries, Bangladesh and South Korea, to assess the diffusion of ICT against the backdrop of government policies and non-governmental initiatives. Subhajit Basu suggests that the future of e-government narratives should be based on a bottom-up approach. Similar suggestions, albeit based on context-specific practical issues, are echoed by Karim Sorour and Loay Abdul-Mageed.

Overall, there is a common tone among all the authors – and that is if ICT is to make an impact in socio-economic development, it needs to be used and appropriated in accordance with contextual variables. Furthermore, developing societies vary in terms of their socio-cultural, political and economic issues which warrant context-specific examination of ICT use. There are also numerous challenges in ICT implementation as identified by the authors. These challenges can only be overcome if a bottom-up approach to implementation and evaluation is undertaken. Hence, from theory to practice, from concept to impact and policy formulations, there is scope for further research – assessed and analysed by the authors. Thereby, this book is a unique addition to ICT for development research stream and would provide useful direction to current and future scholars and practitioners.

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