

▼ Introduction to Information Technology for Development Minitrack

Sajda Qureshi,¹ Peter Wolcott,¹ and Maung Sein²

¹College of Information Science and Technology, University of Nebraska Omaha, USA

²Agder University College, Norway

Information Technology for Development (ITD) is the application and development of Information Technology infrastructures to bring about economic, social and human development in emerging and developed economies. Contributions of research in ITD over twenty years have been to the management of economies through the implementation of IT infrastructures to stimulate national development. Examples of such research include the use of indicators such as gross domestic product and human development indices to assess the effect of IT technologies and infrastructures on national development. Such research provides insight for policy makers seeking to increase business investment in their regions. It also provides guidelines for businesses seeking to implement and use IT infrastructures to support their sourcing strategies.

“Sustainability of Information Technology Therapy on Micro-enterprise Development” by Sajda Qureshi, Peter Wolcott and Mehruz Kamal provides an IT Therapy approach to addressing micro-enterprise needs through IT. This paper provides insights into how IT can bring about sustained improvements in micro-enterprises. The contribution of this paper is in guidelines of how IT can bring about development in micro-enterprises. This has implications for IT interventions to support micro-enterprises to achieve broader goals of sustainable development.

“A Growth-Theoretic Empirical Analysis of Simultaneity in Cross-National E-Commerce Development” by Shu-Chun Ho, Robert Kauffman, and Ting-Peng Liang explores the role of information technology infrastructure in B2C e-commerce growth at the country-level from the perspective of growth theory in economics. The authors propose a hybrid exogenous and endogenous growth model to explain e-commerce growth. Studying 24 countries, the authors found that endogenous factors (online payment availability, and Internet-based selling technology adoption) and exogenous factors (international openness) both contribute to B2C e-commerce growth in a country. They also found that there is a two-way interaction between Internet-based selling technology adoption and e-commerce growth.

“E-government Challenges and the Role of Political Leadership in Indonesia: the Case of Sragen” by Bjørn Furuholt and Fathul Wahid presents e-government

challenges and the role of political leadership in the rural district of Sragen, Indonesia. The study focuses on the supply-side of e-government, and categorizes the challenges in three main areas: management, infrastructure, and human factors. The authors present initiatives taken to deal with these challenges and find that strong political leadership in plays an important role.

“On the Company We Keep: Combined Scale-and-Scope Externalities in the Growth of IT Industry Co-Agglomerations” by Robert Kauffman and Ajay Kumar analyzes the co-agglomeration of four IT industries in 3,142 counties in the United States. Using econometric methods, the authors find that the co-agglomerated computer manufacturing industry benefits the growth of the semiconductors manufacturing industry. Similarly, collocated firms in the semiconductors manufacturing and computer systems design industries appear to benefit each other. The authors find little evidence like this for the software publishing industry. The study offers policy implications for industrial development planners in the global economy.

“Exploring e-Commerce Readiness in China: The Case of the Grocery Industry” by Sherah Kurnia sheds light into the e-Commerce readiness in China, by assessing technological, organizational and environmental contexts of the grocery industry. The uniqueness of China in various aspects including cultural, economic and political, poses different challenges and requires different strategies to encourage widespread adoption of e-Commerce.

“Beyond Broadband: Heterogeneous Connection Models and African Knowledge Infrastructures” by Steven Jackson argues the need to go beyond techcentric accounts of broadband connectivity as the central ideal and focus of contemporary IT for development efforts. The author argues that such accounts: a) routinely downplay or miss the value of local innovations around connectivity; and b) fail to bridge the gap between basic connectivity and the wider institutional, cultural, and practical milieus from which the developmental gains from IT must ultimately come. The paper explores a variety of heterogeneous connection models, all drawn from Africa, and places them within the context of their wider knowledge infrastructures.