Chapter 38
Use and Management of Conventional ICT and Mobile Technology in Microfinance: A Bangladesh Perspective

Mohammad Badruddoza Mia
Open University, UK

Magnus Ramage
Open University, UK

ABSTRACT
Microfinance has been a significant means of reducing poverty since the mid-1970s. With the economic, social, and demographic characteristics, Bangladesh has been one of the countries where microfinance interventions are notable. In Bangladesh, hundreds of microfinance organisations have been implementing microfinance programs covering almost one-third of the rural population of the country. Studies show that the proper use of Information and Communication Technology (ICT) may help microfinance intervention in different ways. It may help increase operational performance, organisational upsizing, and poverty outreach, and decrease interest rate with many other organisational and social implications. This chapter looks into the Information Systems (IS) of microfinance of Bangladesh, the extent and intensity of the use of ICT, the factors that hinder the use of ICT in microfinance, the approaches to ICT management, and the emerging mobile technology-based operational model of microfinance and perceived implications of the changing landscape of ICT on this development program.

INTRODUCTION
Since time immemorial, a significant proportion of the world’s population has been in a vicious cycle of poverty. Considering the extent and intensity of poverty in the world, the United Nations (UN) has fore-grounded its poverty reduction agenda through its Millennium Development Goals (UN, 2000). Microfinance has been a significant means of reducing poverty since the mid-1970s. Realising the important role of microfinance in liberating the poor from this cycle of poverty, the UN pro-
claimed the year 2005 as the International Year of Microcredit, and the Nobel Peace Prize for 2006 was dedicated to the pioneer of the microfinance movement, Professor Muhammad Yunus and the Grameen Bank that he built for the intervention of microfinance.

Nowadays, thousands of microfinance organizations have been established, especially in the LDCs (Least Developed Countries), and they are engaging millions of economically and socially marginalised women and men within their microfinance program operations. With the economic, social and demographic characteristics, microfinance has been an important sector of Bangladesh for long time. Besides Grameen Bank, hundreds of microfinance organizations have been implementing microfinance program covering almost one-third rural households of the country with an aim to address the economic and social problems of poor community of the society (CDF and InM, 2011).

The implementation of microfinance program is information intensive. A successful implementation of this highly distributed nature of program intervention is largely dependent on the information systems of it (Iyengar et al., 2010; World Bank, 2010). The use of ICT (Information and Communication Technology) in the information systems of microfinance can be helpful for operational performance, supervisory performance, increasing transparency, accountability and poverty outreach with many other positive organisational and social implications if the ICT is properly managed (Mia, 2013). This chapter looks into the currently-used Information Systems (IS) in microfinance of Bangladesh, the extent and intensity of the use of ICT, the factors hinder the use of ICT in microfinance, the approaches to ICT management, and the emerging mobile technology-based operational model of microfinance. The chapter concludes with some recommendations regarding the use and implications of the changing landscape of ICT in the microfinance sector of this developing country.

**MICROFINANCE SECTOR AND USE OF ICT**

Although helping poor people through providing financial services used to be in the long past in different parts of the world (Seibel, 2003; Nath, 2004), the present movement of microfinance began after the liberation war of 1971 in Bangladesh, within the context of on-going poverty and undeveloped social circumstances, exacerbated by the war and post-war destruction (Choudury et al., 2009; Yunus and Joils, 1998). Since then the movement of alleviating poverty through providing financial services for the poor and involving them into a process of social development has been going on in the country. Presently, about 700 registered microfinance organizations are providing microfinance services covering 33 million active borrowers from 17, 400 outposts throughout the country (CDF and InM, 2011). Grameen Bank, BRAC and ASA are the major providers of microfinance of Bangladesh. PKSF is the apex funding body that provides wholesale funds to the microfinance organizations especially the medium and small sized organizations. Except for Grameen Bank, all other microfinance organizations of the country are regulated by newly formed Microcredit Regulatory Authority (MRA).

**Use of ICT: Organisational IS**

The use of ICT in the information systems of microfinance in Bangladesh started in the mid-1980s. During this period, BRAC, Proshika and then Grameen Bank started using customised software for the information management of microfinance. Until the late-1990s no organisation used customised software for microfinance of this country other than these three large organizations. However, the use of spreadsheet software has been popular besides using manual information systems since early 1990s in microfinance organizations. A recent survey (Mia, 2013) on 58 microfinance organisation of the country reveals