

Chapter 5

Digital Payments Systems for Emerging Economies: Case of Tanzania

Bossi A. Masamila

The Open University of Tanzania, Tanzania

George S. Oreku

The Open University of Tanzania, Tanzania

Edephonce N. Nfuka

The Open University of Tanzania, Tanzania

ABSTRACT

Innovative digital payment systems (DPS) are a crucial solution for greater financial inclusion assisting low-income households in overcoming poverty using lower-cost methods for managing their finances. The advancement in internet communication technologies and the arrival of e-commerce and e-business simulated digital payment systems provides various electronic payment options such as payment cards, mobile payments, mobile wallets, electronic cash, and contactless payment methods. This chapter discusses the current state of the art in digital payment systems in emerging markets. Also, it analyzes the advantages of DPS in emerging economies, challenges in emerging economies, the economic impact of DPS in emerging economies, cyber security issues in DPS, and the future of the DPS in emerging economies.

INTRODUCTION

Digital technologies enable financial services such as transaction accounts, credit, savings products, and insurance to people without limited financial services. They are increasing the speed of transactions, security, and transparency (Bachas et al., 2018). They enable the development of sustainable financial products tailored to the needs of people with meager, erratic incomes. These technologies are lowering costs by maximizing economies of scale by removing barriers to providing financial services, such as

DOI: 10.4018/978-1-6684-6873-9.ch005

Digital Payments Systems for Emerging Economies

lack of identification, formal income, and geographic distance, which are the stumbling block in developing economies (Sun et al., 2016).

In emerging economies, mobile money has leveraged high mobile phone penetration to deliver a ‘first wave’ of digital financial services. GSMA, a website that tracks mobile money service deployment worldwide, reported over 850 million registered mobile money accounts across 90 countries, most of which are emerging economies. Their day transaction is worth more than \$1.3 billion. In their publication of 2020, the World Bank reported that Sub-Saharan Africa is the leader in mobile money (Serrate et al., 2020). It has over a fifth of the adult population with mobile money accounts (UNCTAD, 2020). The report shows that these accounts can provide a basis for more sophisticated financial services, such as digital lending and insurance. In the digital economy, going cashless eases one’s life and helps authenticate and formalize transactions. This helps curb corruption and the flow of black money, which increases economic growth.

According to Wakarima (2022), Africa accounts for 70% of the World’s \$1 trillion mobile money value. That is almost two-thirds of the global value of \$767 billion, according to the GSMA, underlining that the region’s banking future is secured by monetary digitization (Wachira, 2023). Digitization of payments has increased transparency and reduced the cost of financial transactions, leading to greater efficiency and economic growth. Once a payment system works effectively and efficiently, it becomes a game changer to an economy (Wachira, 2023). Increasing the use of electronic payments boosts consumption and GDP. Moreover, the impact increases as penetration rises.

This chapter will discuss Digital Payment technologies, followed by the Advantages of digital payment Systems. The Challenges of Digital Payment Systems will follow, the Economic Impact of Digital Payment Systems, Cybersecurity in Digital Payment Systems, and the Future of Digital Payments Systems. It will end with concluding remarks.

Digital Payment Technologies in Emerging Economies

A digital payment System (DPS), sometimes called an electronic payment system, transfers value from one payment account to another using a digital device such as a mobile phone, POS (Point of Sales), or computer. This section will describe the technologies used in digital payment systems in developing markets. Figure 1 presents critical themes identified for digital payment technologies. They have broadly classified into four leading digital payment technologies modes: card payments, e-payments, mobile payments, and cryptocurrencies (Bachas et al., 2018). Each digital payment technology is grouped under one of these theme categories, and each theme is discussed below and supported by relevant studies.

- **Card Payments:** Card payments are digital payment technology services made available by banks and other financial institutions to their customers. It is a more convenient payment form than other categories, such as e-payments, mobile payments, and cryptocurrencies. Cardholders can access their bank accounts through bank cards and make payments online or via POS machines. All card payment technologies are regarded as easy and convenient payment methods (Aldaas, 2021). Banking cards offer consumers more security, convenience, and control than other payment methods. The wide variety of cards available includes credit, debit, and prepaid. Payment cards give people the power to purchase items in stores, on the Internet, through mail-order catalogs, and over the telephone—the usage of Bank cards is more pronounced in towns and cities where banks and their corresponding outlets exist.

13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/digital-payments-systems-for-emerging-economies/324824

Related Content

Exploring the Notion of 'Technology as a Public Good': Emerging Characteristics and Trends of the Digital Divide in East Asian Education

Sunnie Lee Watson and Thalia Mulvihill (2011). *International Exploration of Technology Equity and the Digital Divide: Critical, Historical and Social Perspectives* (pp. 40-57).

www.irma-international.org/chapter/exploring-notion-technology-public-good/47504

Impact of Technology on University Leadership Effectiveness Among Academic Staff of Some Selected Private Universities in Ghana

Benjamin Ghansah and Ben-Bright Benuwa (2021). *International Journal of ICT Research in Africa and the Middle East* (pp. 15-29).

www.irma-international.org/article/impact-of-technology-on-university-leadership-effectiveness-among-academic-staff-of-some-selected-private-universities-in-ghana/290834

Measuring Mobile Phone Technology Adoption in SMEs: Analysis of Metrics

Renatus Mushi, Said Jafari and Almar Ennis (2017). *International Journal of ICT Research in Africa and the Middle East* (pp. 17-30).

www.irma-international.org/article/measuring-mobile-phone-technology-adoption-in-smes/169949

Dysfunctional Development Pathways of Information and Communication Technology: Cultural Conflicts

G. Roland Kaye and Stephen Little (2002). *Information Technology Management in Developing Countries* (pp. 186-203).

www.irma-international.org/chapter/dysfunctional-development-pathways-information-communication/23713

Using ICT to Integrate Smallholder Farmers into Agricultural Value Chain: The Case of DrumNet Project in Kenya

Julius J. Okello, Edith Ofwona-Adera, Oliver L.E. Mbatia and Ruth M. Okello (2010). *International Journal of ICT Research and Development in Africa* (pp. 23-37).

www.irma-international.org/article/using-ict-integrate-smallholder-farmers/41934