

INSIGHT

Business Efficiency Gains through Improved Water Billing Practices



About 64% of households have access to safe drinking water within their premises, but fewer households in rural areas (58%) have this amenity. Photo credit: ADB.

Adopting a digital billing system can help improve the efficiency and sustainability of water services in Cambodia.

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Introduction

Despite some progress in providing access to clean water, many developing economies in Asia are far from meeting Goal 6 of the 2030 Agenda for Sustainable Development.

In the case of Cambodia, a fast-growing economy in the region, more than 3 million citizens still lack access to safe water while 5 million lack access to improved sanitation. The national strategy sets a goal for the country to reach middle income status by 2030 and high income by 2050, which will require meeting sustainability targets, including clean water and sanitation. Therefore, efforts in both the public and private sectors continue to develop and operate more efficient and sustainable services.

The trend toward rapid digital transformation in not only Southeast Asia but also in the world offers an opportunity to improve the business efficiency of water and other urban services by shifting to online

payment systems, such as via internet and mobile banking. This will improve bill recovery, customer monitoring, and service delivery. The development and application of a digital transformation strategy in billing and payment systems can improve the sustainability of services.

The Knowledge Immersion Program of the Asian Development Bank (ADB) helps developing member countries strengthen their knowledge and skills in information and communication technology (ICT). In Cambodia, the program supports the Ministry of Public Works and Transport's (MPWT) project on urban services, and it involves customizing a technology or process to fit the needs of the organization.

This article shares insights from the program.

Overview of Water and Sanitation Sector

Cambodia has emerged as one of the fastest-growing economies in Asia with growth averaging 7.7% between 1998 and 2019. Despite rapid growth, limited access to clean water and sewage has been raised continually as a problem.

As of 2019, although investments in water purification and supply systems continue to be made with the support of major institutions, including the ADB, only 63.6% of households in the country have access to clean water for drinking within their premises. The situation is more severe in rural areas where only 58% of the population has access to safe water. In terms of sanitation, 49.6% of households in urban areas have a pour-flush (or flush) toilet connected to sewerage, whereas this was only 24.8% in rural areas.

Increasing access to safe drinking water and sewerage services for all Cambodian households (either within or close to their premises), as well as improving solid waste management systems, remains the highest priority to maintain proper hygiene.

Water Billing Authority and System

Urban water resources management and responsibilities are held by the Ministry of Industry, Mines and Energy (MIME), while rural areas are managed by the Department of Rural Water Supply (DRWS). In urban areas, including large cities, such as Phnom Penh and Siem Reap, the water service is operated by separate provincial water supply authorities (PWWK).

For example, water billing in Phnom Penh, which has the highest access to improved water in Cambodia, is administered by the Phnom Penh Water Supply Authority (PPWSA). Invoices are printed every 2 months based on meter readings. Payment is made through several methods:

- pay in cash in person at PPWSA's head or branch office,
- by check at a bank,
- through an automated teller machine or by electronic funds transfer at point of sale (EFTPOS), and
- through mobile phone banking.

Cambodia has a cash-based economy, and most of the transactions with PPWSA are in cash. Payments through the banking system are on average 100 operations per day or about 1% of total transactions.

Most of the meter reading and payment collection are done by humans. The PPWSA also relies on manpower for the entire process of billing and payment because of the relatively low labor costs.

The Private Sector Payment Environment

An increasing number of young mobile users in Cambodia pay via online banking, including through mobile applications.

To fulfill the growing demand of customers and following the global digital trend, private sector actors in the country are playing a central role in addressing the gaps in the digitalization of payment systems.

There is fierce competition in the digital payments market. Key fintech players include Wing, DaraPay, Pi Pay, and Bakong. Traditional players in the banking sector, such as Maybank and ABA, also provide online bill payment services. For instance, the ABA Mobile app allows users to pay bills to the water supply authorities of Phnom Penh and Siem Reap by scanning a barcode on their invoice.

A Digital Billing System for Public Utilities

The share of internet users in Cambodia's population surged to 41% in 2018 from 0.5% in 2009. Majority or 84% of the population is covered by 3G mobile phone services. [1]

Internet access and usage are expected to continue to increase in Cambodia. The country is one of the 10 members of the Association of Southeast Asian Nations (ASEAN), which has announced its goal of accelerating digital transformation to mitigate the economic impacts of the COVID-19 pandemic.

With increased connectivity, it will be beneficial for the public sector to implement digital billing and payment systems alongside efforts to improve the efficiency and sustainability of water services. The private sector has made progress in mobile payment services. The next challenge is to establish a digital billing system that can accept electronic statements from digital payment service providers, which will allow the billing system to identify the payer and amount received.

Implications

A relatively high smartphone penetration rate and internet distribution rate in Phnom Penh gave an opportunity for several mobile banking services to emerge in the market. And until recently, Cambodians had to make in-person payments or inquiries, but now they have increased access to digital government and banking services.

Businesses are being driven by digital technology and the increasing needs of digitally savvy

consumers. Companies, such as DaraPay, Wing, and ABA Bank, are at the front line in introducing mobile banking and mobile payment and in developing financial applications. The positive development and change in the market support innovation and digital transformation.

Ultimately, the Cambodian government should incorporate digital billing systems at the national level. This has a positive impact on business development for service operators despite the capital expenditure for deploying the digital system. In the short term, digital transformation will enhance service delivery and customer monitoring. From the long-term perspective, the strategy will improve cost-recovery and transparency and help to manage resources, debt, and profit.

By developing a modernized billing and payment system, Cambodia may be able to produce tangible results in a relatively short period.

[1] Asian Development Bank. 2019. Asian Development Bank Member Fact Sheet: Cambodia.

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Asian Development Bank (ADB)

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