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Uncertainty of public pay phone in Thailand: Implications for the universal service obligation

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ABSTRACT

Public pay telephones are fast becoming technological dinosaurs headed quickly toward extinction. In Thailand, however, the National Broadcasting and Telecommunications Commission (NBTC) has included the public pay phone as part of the Universal Service Obligation (USO) to ensure that all people in the country have reasonable access to a standard telephone service on request, and that payphones are accessible to all people on an equitable basis, wherever they live or carry on business. In spite of this, however, public pay phones and their revenue are also sharply declining due to the ever increasing encroachment of mobile phone technology. The researcher therefore undertook a study to empirically examine the key determinant factors for individual consumers using public payphones. A discrete choice model is employed together with the analysis of data from a 2011 national survey commissioned by the NBTC. Payphone usage is determined by the ownership of fixed phones, mobile phones and income which all play an important role with payphone being a necessary service for low-income people. Hence, NBTC should continue support through the USO fund and reassess the areas and groups of people who need this service in order to ensure that the USO policy is effectively and beneficially implemented.

1. Introduction

With the first telephone coming to Thailand in 1881 (ITU), it was not until 1979 that the first public pay phone was first introduced in the form of telephone booths in merchant establishments and other public areas. TOT public company limited (TOT), a State-Owned Enterprise (SOE), continues to be the main operator providing this form of telecommunications service while also allowing private companies to jointly provide various services. TOT's existing public telephones can be divided into three major types including (1) coin pay phones, (2) card/credit card pay phones, and (3) pay phones operated using both coins and cards (TOT Annual Report, 2008).

There are also two kinds of public pay phones in Thailand – 'red' and 'blue.' The red phones are for local calls while the blue phones can be used for both local and long-distance calls within Thailand. Local calls can be placed at the rate of 1 Thai Baht (THB) for three minutes.

Statistics from TOT's annual report in 2009 and 2011 revealed a considerable decline in pay phone numbers beginning in 2007. This trend has continued to this day with both supply and demand declining year by year. In Thailand, the number of lines in service experienced a consistent year-on-year decline from 325,804 to 245,358 in 2011. The number of lines in

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service per 1000 population decreased from 12.19 lines per 1000 populations in 2007 to 3.83 in 2011 with a considerably higher decline rate in metropolitan areas (TOT, 2009, 2011).

On the contrary, the number of mobile subscribers has surpassed a 100% penetration rate and fixed line penetration rate since 2004. This indicates that the emergence of mobile telephony has had a greater impact on fixed line service and pay phone service which is similar to that in the United States (FCC, 2010), the UK (The Highland Council, 2008) and Australia (ACMA, 2008). Despite being substituted by mobile technologies, the demand for public pay phones still exists, especially in terms of necessity, emergency or lack of wireless phones among users who are students, rural users or the general public.

The Thai government and the National Broadcasting and Telecommunication Commission (NBTC or formerly known as the NTC), is the broadcast and telecom regulator for Thailand, which has been tasked with regulating consumer demand through project and regulations, including the universal service obligations (USOs).

Before the establishment of the NTC in 2004, many universal service projects were implemented by Thailand's State-Owned Enterprises (SOEs) – TOT and CAT (Communications Authority of Thailand). They included the rural long distance public phone project, public telephones for the disabled, the SchoolNet Thailand computer network launched in 1995 by the National Electronics and Computer Technology Center (NECTEC) (Tangsathitkulchai & Angchun, 2010), Internet Tambon, donated computers and ICT computers for the Thai people's project. Additionally, in 2006 TOT received the Best of State Enterprise Award for Social Contributions from the Ministry of Finance for TOT's continuous support since 1995 for the Distance Learning via Satellite Project under the Distance Learning Foundation. The goal of this project was to serve His Majesty the King's policy of providing a life-long learning system and expanding access to education to those living in rural and remote areas (TOT Annual Report, 2006).

It can be seen that while successful performance in the telecommunications sector is important, TOT (as well as CAT) also takes on another role in Thailand to implement activities that benefit society. As such, with profit driven results not being the primary focus of the TOT and CAT SOEs, society beneficial service projects have created significant financial deficits and these state enterprises have become non-profitable corporations, using their revenues from their monopoly services to cross-subsidize their losses.

The trend of declining demand in pay phones along with the rapidly increasing subscriptions of mobile phone raises the question about supply side demand and the importance of pay phones and the scope of the USO. An understanding of these implications of public pay phones being substituted by mobile technologies could help facilitate alternative forms of policy and regulatory intervention. This paper therefore was focused on conducting an empirical analysis of the key determinant factors of individual consumers using public pay phone in Thailand by using survey data from 2011.

The rest of the paper is organized as follows: Section 2 presents a literature survey followed by an overview on public pay phone service and the USO policy in Thailand in Section 3. Section 4 has a brief description of the dataset and method. Section 5 shows results and discussion. This study ends with a conclusion and policy recommendation in Section 6.

2. Literature review

Universal service policy has been discussed by many countries for over a decade. It continues to be an important policy for countries because it bridges the digital divide and increases effectiveness and competitiveness (Liu & Wu, 2013). Universal service obligations (USOs) are a standard practice in many network industries including telecommunications.

The original concept of universal service was started in 1907, by AT&T President Theodore N. Vail who proclaimed universal service to be a key corporate goal. AT&T popularized this goal in a major publicity effort that historian Roland Marchand has termed 'the first, the most persistent and the most celebrated of the large-scale institutional advertising campaigns of the early twentieth century' (Marchand, 1998). By that time, AT&T aimed to eliminate the dual telephone service and interconnect all telephone users in a single system under centralized management. The campaign failed, but the concept remained.

Since then, this concept has evolved to mean offering basic telecoms services, mostly under a Public Switched Telephone Network (PSTN) (Bohlin & Teppayayon, 2009). Universal service and universal access are closely related concepts. In the United States, the notion of universal service is most commonly expressed as the belief that all households in the nation should have access to the telephone network. This is consistent with the International Telecommunications Union (ITU) suggestion that universal service should be defined as a telephone in every home, while universal access, often seen as a precursor to universal service, should be defined as a telephone within a reasonable distance for everyone (USA FCC, n/d).

USO can be broadly divided into two categories: quality obligations (e.g., minimum quality standards and ubiquity of service) and price obligations (e.g., uniform and affordable pricing) (Gautier & Wauthy, 2012). The underlying aim of universal service is to ensure that the benefits of cheaper and better quality telephone service and other benefits of increased competition and choice are passed on to all users. Key issues that regulators and policy makers face with regard to universal service provision are estimation and mechanisms for funding, mechanism for deployment and involvement of private sector, and monitoring targets (Crandall & Waverman, 2000).

By stimulating connections, telecommunications operators gain new revenue streams, and in some areas which are currently deemed 'uneconomic', would be pushed into the 'economical' category (Graham, Cornford, & Marvin, 1996). Key issues that regulators and policy makers face with regard to universal service provision are estimation and mechanisms for funding, mechanism for deployment and involvement of private sector, and monitoring targets (Crandall & Waverman, 2000).