

# Benefiting the bottom of the pyramid?

LIRNEasia conducted a comprehensive survey to find out the efficacy of telephones in expediting socio-economic development and buttressing accessibility



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## Technology for development

Roller and Waverman<sup>1</sup> argued in a paper (2001) that a significant amount of the output increase in OECD (Organisation for Economic Cooperation and Development) countries from 1970-1990 could be attributed to the increase of fixed-line telecommunications; Waverman, Meschi and Fuss<sup>2</sup> suggested in a paper (2005) that the growth of mobile phone networks is playing a similar role in increasing output in developing countries. These papers and others provide strong evidence for the connection between phone access and development. The claims about the impact of technology on development can seem astounding in their scale and range, but this is certainly the case for telecommunications. However, while the theory on large-scale, macroeconomic benefits of telecom access is supported by evidence studies like those by Roller, Waverman, Meschi and Fuss, the issue is less well researched at the household level, especially for developing countries. It is in these countries where the theorised economic benefits of telecom access would have the greatest impact, providing a possible means to escape poverty. Yet, the results of a comprehensive 2006 survey by LIRNEasia indicate that these economic benefits are not perceived to be as high by those very users at the bottom of the economic pyramid who have the most to gain. This article aims to explore why the advantages of phone ownership are not perceived as such, and what may be done to remedy the situation.

## A summary of findings

In the survey, which gathered data (on telephone usage—mobile and fixed) from phone owners at the bottom of the pyramid in India, Pakistan, Sri Lanka,

Thailand, and Philippines, respondents were asked to rate the impact of phone access on various activities on scale of 1 to 5, with 1 representing the worsened situation, 5 being an improved one and 3 being neutral. The non-economic implications of phone ownership at the bottom of the pyramid were strong across the board. The most important improvement from phone ownership was the ability to act in an emergency; a fairly obvious (and universal) finding. The results were similarly optimistic with respect to the ability to keep in touch and maintain social relations as well as in improving social status.

The survey findings demonstrated that impacts of the phone on 'the efficiency of daily activities' and 'income earning or cost-saving ability', the two which perhaps have the largest economic ramifications, were less strongly perceived among the bottom of the pyramid respondents. With regard to the efficiency of daily activities, users said their day-to-day efficiency was somewhat improved, with the most satisfaction coming from telecom users in the Philippines and Thailand with scores of 4.40 and 4.37 out of 5, respectively, and the lowest from users in India and Sri Lanka, who rated the improvement at 3.90 and 3.98 respectively. Respondents, when asked about increased income or decreased costs associated with phone use,

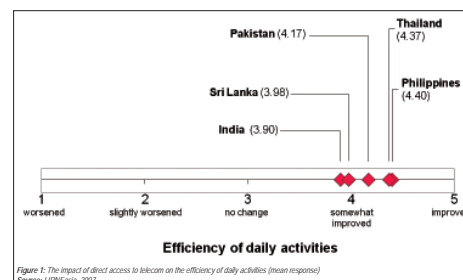
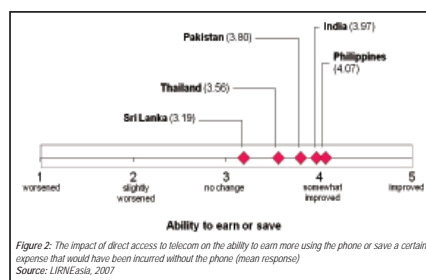


Figure 1: The impact of direct access to telecom on the efficiency of daily activities (mean response)  
Source: LIRNEasia, 2007



said that they had experienced almost no improvement (Sri Lanka in particular) or ‘somewhat’ of an improvement. The results varied across the countries, with the strongest perception of the economic benefits from telecom use in the Philippines, perhaps because the popular SMS (texting) services offer a cheaper alternative to high priced calls. Overall, the level of satisfaction on this aspect was significantly lower (statistically speaking) than that on the previous aspect in all countries except India. It appears that, except for in India, there is a ‘disconnect’ in peoples’ perception of efficiency gains versus economic gains, indicating that they do not feel this efficiency translates into any economic impacts as strongly. Indian respondents however, rated the former at 3.90 and the latter at 3.97 (statistically speaking, not a significant difference), indicating that users were perhaps relating how efficiencies gained in time or increased information could result in economic benefits. This distinction between indirect efficiency benefits and direct economic benefits is a key point in understanding why financial improvements are not being perceived on a household level, and we will return to it in a moment.

### The not-so-palatable trend

Results from the survey responses of 8,660 households do not manifest a strong correlation with the macroeconomic evidence that access to phones carries significant economic benefits. Where then is the disconnect coming from between what households perceive as the limited economic benefits of phone use, and the significant increases in macro-level output? One possibility is that many users at the bottom of the pyramid prefer face-to-face interactions in their business dealings (where perhaps the most obvious economic gains can be made), and access to phones will not quickly change the situation. Along with a more personalised approach to business, many developing countries also feature a significant barter economy, where increases in income and decreased costs play out in a less evident manner. Thus, it may be that, services are exchanged between family and friends in a social manner, but in a way that is very much economic as well. In this situation, it is not always clear that using the phone to maintain a social connection is actually helping a financial situation.

A third option is that users may not be taking into account the indirect economic effects of their phone ownership, as was alluded to earlier. The direct benefits of phone access come when users gain actual income from owning a phone, such as the case in the ‘Bangladesh Village Phone Program’ where phone owners can sell the access to their phone to their neighbours. However, these direct economic benefits only accrue to a limited number of people, and would not be perceived by the majority of survey respondents or those at the bottom of the pyramid. The indirect benefits, such as efficiency gains because a brief call can be made in place of physical travel, or the ability to make good business decisions because data about transactions can be obtained via the phone,

would be more widespread, but are also harder to pinpoint, so much so that only recently, have researchers been able to quantify such benefits among fishermen in Southern India<sup>iii</sup> and farmers in Sri Lanka<sup>iv</sup>. As such, it is not surprising that most users, with the exception of some in India, did not feel there was a strong connection between efficiency gains and economic ones. Finally, it may be that users perceive an increase in their economic wellbeing from phone ownership, but these benefits are outweighed by the costs of owning the phone itself. This belief is most pronounced in Sri Lanka, where users also perceive phone call costs as being very high, burdened by a lack of a ‘Calling Party Pays Regime’, where incoming calls on mobiles are free.

### The reverse trend

It is important to note that this disconnect does not mean that the benefits of phone ownership do not exist. For example, the results from the survey revealed that in India, Pakistan and the Philippines, users in the agricultural sector said that phone ownership improved their efficiency and their ability to earn or save more. The study also indicated that people involved in service sector jobs like tailoring in Pakistan use their phones to contact clients and thus improve their business efficiency. These examples demonstrated the importance of addressing this disconnect so that users clearly identify how the efficiency gains they’ve seen in their social relations can also come into play financially.

### Policy alternatives

The survey results demarcated two definitive policy objectives that may be undertaken. Firstly, the importance to advertise and promote the economic efficiency gains from phone ownership, providing users with relevant examples of how telecom can save them money or even help them to earn it by improving their efficiency needs to be highlighted. For example, by demonstrating that farmers can use their phones to quickly obtain market prices and introducing uses for SMS to quickly and easily settle financial matters. Secondly, the issue of whether the costs of telecom are actually greater than the potential benefits needs to be addressed. The survey found that prices were one of the greatest issues in Sri Lanka, and it is clear that high prices --perceived or actual-- will hinder users from taking full advantage of telephone access. With these policy objectives, the true potential of telecom access can be realised at the bottom of the pyramid, starting with the millions of households at the base and working its way up to truly stunning improvements at the macro level. ■

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