

Bottom of the Pyramid Expenditure Patterns on Mobile Phone Services in Selected Emerging Asian Countries

Aileen Agüero
Harsha de Silva

January 2010



This work was carried out with the aid of a grant from the International Development Research Centre, Canada and the Department for International Development, UK.

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Research Centre



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développement international

DFID Department for
International
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Outline

1. Introduction
2. Basic concepts
3. Literature survey
4. Empirical Analysis
5. Conclusions

Introduction (1/2)

- Potential and benefits of mobile services is well-documented in the literature:
 - Improvement of market functioning.
 - Mobile phone: Information enabler ⇒ better decision making.
 - Productivity is enhanced, knowledge is shared, geographic limitations are overcome and social relationships and networks are maintained.
- Relevant to understand how the poor allocate their resources in Asian emerging countries.

Introduction (2/2)

Objectives:

1. Study expenditure patterns in mobile phone services at the Bottom of the Pyramid of:
 - Bangladesh
 - Sri Lanka
 - Pakistan
 - Thailand
 - India
 - Philippines
2. Determine if this service is a *luxury* or a *necessity* in economic terms.

Basic concepts (1/2)

- **Engel's Law**

“The poorer the family, the greater the share of income devoted to food.”

- **Engel curve**

The function describing how a consumer's expenditure on a good relates to total resources holding prices fixed.

Basic concepts (2/2)

- **Income elasticity**

Measures the percentage change of demand when income varies in one percent.

- **Economics classification of goods**

Necessary ($0 < e < 1$), luxury ($e > 1$)

Income inelastic

Income elastic

Literature survey

Good/Service	Country	Results
Food	Ethiopia	Luxury
Health care	US, OECD, Africa	Necessity
Social protection	OECD	Necessity
Housing services	US	Necessity
Telecommunications	Peru, Albania, Mexico, Nepal, S. Africa	Luxury
Mobile service	Africa Colombia	Necessity* Luxury
Internet	OECD (2000)	Luxury

* Income Inelastic

Empirical Analysis (1/4)

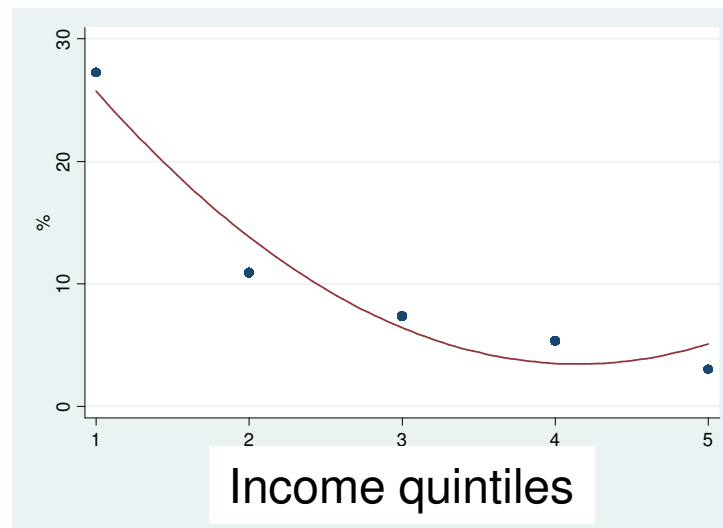
- T@BOP dataset.
- Multi-country study of ICT use by LIRNEasia.
- Bangladesh, India, Pakistan, Philippines*, Sri Lanka and Thailand.
- BOP: D and E SEC groups.
- Randomly selected household member.

* Only SEC E

Empirical Analysis (2/4)

Q	Bangladesh	Pakistan	India	Sri Lanka	Philippines	Thailand
1	29.7	45.8	24.3	27.0	57.0	24.4
2	11.5	17.2	11.3	11.7	28.8	11.4
3	7.8	9.9	8.4	6.5	18.4	7.3
4	6.5	6.8	5.7	4.7	11.7	5.2
5	3.8	5.1	4.4	3.1	6.3	3.7

Share of mobile phone service expenditure relative to total personal income



Sri Lanka

Empirical Analysis (3/4)

- Pakistan:
 - Highest tax levels.
- Philippines:
 - Remittances.
 - High use levels.
 - Only SEC E was considered.

Empirical Analysis (4/4)

Countries	Elasticities
Bangladesh	0.2262
Pakistan	0.2298
India	0.2640
Sri Lanka	0.2075
Philippines	0.1782
Thailand	0.1965

$$s = \alpha + \beta \ln Y + \gamma (\ln Y)^2$$

$$\varepsilon = 1 + \beta / s + 2\gamma \ln Y / s$$

s = Expenditure in mobile phone service / Total personal income
 Y : Total personal income

Conclusions (1/2)

- Mobile phone service: necessity
- The poorer the people, the largest the share of mobile expenditure relative to personal income.
- Authorities to avoid charging more taxes (7% in Thailand to 29% in Pakistan)

Conclusions (2/2)

- Results: differences in regulatory environments, operator strategies and taxes policies (competition).
- One more tool for taxation treatment.
- Need of accurate data on income and mobile service expenditure.

Thanks!

aileen.aguero@gmail.com