Chapter 6.12 Optimal Number of Mobile Service Providers in India: Trade-Off between Efficiency and Competition

Rohit Prasad Management Development Institute, India

Varadharajan Sridhar Management Development Institute, India

ABSTRACT

With 225 million subscribers, India has the world's third largest mobile subscriber base in the world. The Indian mobile industry is also one of the most competitive in the world with 4-7 operators in each service area. A large number of operators bring competition and its associated benefits such as decrease in price and hence corresponding growth of the market. On the other hand in the presence of economies of scale, too many operators may result in inefficient scales and high unit costs. This article analyses the trade-off between competition and economies of scale by estimating the production function for mobile subscribers and traffic carried. Analysis of panel data reveals the existence of economies of scale in the Indian mobile sector. We then derive an upper bound on the optimal

number of operators in each license area and discuss policy implications.

INTRODUCTION

Quick deployment, competition, advancement in technologies, and reduced cost of access have propelled the growth of mobile services in India much like in other emerging countries. The Indian mobile subscriber base continues to grow and has reached about 225 million in December 2007 from about 142 million a year ago. Figure 1 illustrates the exponential growth of mobile services in India. India currently has the world's third largest mobile subscriber base, and is slated to exceed that of the U.S. by the end of this year to become the second largest in the world, next



Figure 1. Growth of mobile services in India

only to China. The compounded annual growth rate of the mobile subscriber base has been 84.2% over the last 5 years. Revenue from cellular mobile services touched \$12.5 billion for the fiscal year ending March 2007 (Voice & Data, 2007).

The Indian mobile industry is also one of the most competitive in the world. There are as many as 7 mobile operators in certain areas of the country. Figure 2 illustrates the amount of competition and market power as indicated by



Figure 2. HHI over time period across different categories of Service Areas

15 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/optimal-number-mobile-service-providers/26666

Related Content

BYOD (Bring Your Own Device), Mobile Technology Providers, and Its Impacts on Business/Education and Workplace/Learning Applications

Amber A. Smith-Ditizioand Alan D. Smith (2019). Advanced Methodologies and Technologies in Network Architecture, Mobile Computing, and Data Analytics (pp. 763-774).

www.irma-international.org/chapter/byod-bring-your-own-device-mobile-technology-providers-and-its-impacts-onbusinesseducation-and-workplacelearning-applications/214659

Multi-Criteria Recommender Systems: A Survey and a Method to Learn New User's Profile

Ferdaous Hdioud, Bouchra Frikh, Brahim Ouhbiand Ismail Khalil (2017). *International Journal of Mobile Computing and Multimedia Communications (pp. 20-48).*

www.irma-international.org/article/multi-criteria-recommender-systems/193258

A Unique Method of Constructing Brand Perceptual Maps by the Text Mining of Multimedia Consumer Reviews

Amir Ekhlassiand Amirhosein Zahedi (2018). International Journal of Mobile Computing and Multimedia Communications (pp. 1-22).

www.irma-international.org/article/a-unique-method-of-constructing-brand-perceptual-maps-by-the-text-mining-ofmultimedia-consumer-reviews/209387

MICA: A Mobile Support System for Warehouse Workers

Christian R. Prause, Marc Jentschand Markus Eisenhauer (2011). *International Journal of Handheld Computing Research (pp. 1-24).*

www.irma-international.org/article/mica-mobile-support-system-warehouse/51571

Framing the Context of Use for Mobile HCI

Satu Jumisko-Pyykköand Teija Vainio (2010). International Journal of Mobile Human Computer Interaction (pp. 1-28).

www.irma-international.org/article/framing-context-use-mobile-hci/47099