Chapter 7.7
Mobile Telephony as a Universal Service

Ofir Turel
California State University Fullerton, USA

Alexander Serenko
Lakehead University, Canada

If we cannot end now our differences, at least we can help make the world safe for diversity.
—John F. Kennedy

INTRODUCTION

The opening quote nicely conceptualizes one of the most difficult challenges managers and regulators in the telecommunications sector face. While such individuals are not, for the most part, concerned with world-safety, they do need to address similar diversity issues in order to be profitable and to provide true universal services (i.e., reasonably priced, high quality telecommunication services to everyone who wishes to use them). Similarly to John F. Kennedy, managers and regulators understand that one-service or set of regulations that fits all may not be a wise strategy. Rather, their offerings and regulatory mechanisms are always flexible, and they cater to a heterogonous subscriber market. While wireless service providers do try to cater to different market segments by offering a variety of service packages, regulators often employ a single set of regulations that serve the entire market. On the one hand, organizations offering mobile services to individuals attempt to segment the market to maximize various performance factors, such as usage airtime, revenues, and customer base. On the other hand, policies should be in place to avoid the discrimination of specific less profitable customer categories. In fact, in the 21st century, mobile telephony has become so critical for the well-being of millions of people that it is vital to ensure the fairness of mobile services delivery.

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OVERVIEW

The Need for Market Oriented Policies

Market segmentation is an obvious concept for wireless service providers. Its importance is further emphasized in today's networked society. Currently, many telecommunication service providers cater to a much broader market than the one they had initially targeted. For example, twenty years ago, expensive handset and service charges led to the adoption of wireless services by mostly high-income individuals. In today's markets, however, the penetration of mobile telephony has reached lower-income individuals as well (Jain, 2006). Thus, in modern heterogeneous markets, businesses continuously investigate demographic and psychographic profiles that affect subscriber interaction with telecommunication services (e.g., Chaudhuri, Flamm, & Horrigan, 2005; Rice & Katz, 2003). Their objective is to identify a number of distinct user groups and to serve them differently. For this, regulators utilize behavioral research to understand how subscribers, belonging to different market segments, develop perceptions and form behavioral outcomes of service usage, resulting in company revenues (Schejter, Serenko, Turel, & Zahaf, 2010). Therefore, mobile service providers may potentially discriminate against specific less profitable customer segments, for instance, low-income households who mostly subscribe to inexpensive basic plans, avoid premium services, live in remote regions, or are located in infrastructurally challenged areas.

To emphasize the importance of this issue, we may recall Hurricane Katrina, one of the deadliest natural disasters in the US history. Throughout this tragedy, wireless services were the only public communication means that remained intact. Thus, the potential use of mobile phones by lower-income individuals in the New Orleans area may have saved lives. Therefore, one may ask – 'would things have been different had the Federal Communications Commission (FCC) enforced affordable access to wireless services for low-income families?,' or 'would things have been different had the FCC enforced certain quality standards (e.g., maximum number of disconnected calls) in low-income areas?' It is believed that this argument conveys that both regulators and service providers should not only concentrate on differences in market segments to maximize their profits, but also on the facilitation of universal services.

Universal Services

Universal service is a key desirable objective for many regulators. It is broadly defined as providing reasonably priced, high quality telecommunication services to everyone who wishes to use them (Melody, 1997). This is an important concept because access to such services enables full participation in modern society (Blackman, 1995). To ensure the universality of telecommunication services, regulators typically define 'Universal service obligations' (USO) that are implemented through coverage constraints (Valletti, Hoernig, & Barros, 2002) and price-capping (Baake, 2002). Financing the nationwide provision of services in the US is done through a Universal Service Fund (Prieger, 1998) that subsidizes for telephone service in areas with no business-justification for service provisioning.

The term "universal service" has emerged in the early 20th century for describing the need for interconnecting the thousands of local phone companies that existed in the US (Mueller, 1997). Given the myriad of new communication bearer technologies, however, one of the ongoing debates relates to the scope of services included under this umbrella (e.g., broadband, cable, and cellular communications) (Pitt & Levine, 2004). For example, the 1996 Telecommunications Act in the US is pretty vague with regards to this scope. The FCC states that the goal of universal service is to "increase access to advanced telecommunications