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Antecedents of international mobile Internet tariff type preferences

An empirical study of roaming customers

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Abstract

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Antecedents of international mobile Internet tariff type preferences: An empirical study of roaming customers

International roaming (IR) makes it possible to conveniently use mobile communication services (MCS) such as voice calling, text messaging and mobile Internet (MI) access abroad without the hassle to switch providers, devices or SIM cards. In order to increase the intensity of competition on the intra-European Union (EU) market for IR services, customers in the EU will be enabled to buy IR services separate from their existing domestic MCS as of July 2014. Providers can use three different types (use-dependent, flat, combination of flat and use-dependent) to charge for separate international MI services. To date, little is known about customer preferences concerning the three rate plan categories and on antecedents of such preferences. The present study seeks to contribute to narrowing this knowledge gap by developing six research questions concerning antecedents of tariff type preferences for separate international MI access services. They are empirically addressed by multinomial logistic regression analysis in a sample of 496 German-speaking MCS users. Implications of the empirical results are highlighted especially for firms considering to enter the market for international MI services and for established cross-border MI providers.

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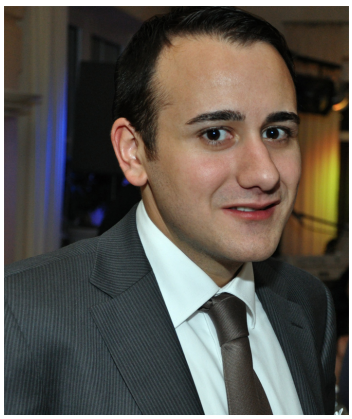

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1. Introduction

The possibility to use mobile communication services (MCS) such as voice calling, text/multimedia messaging (SMS/MMS), and mobile Internet (MI)[1] access outside of one's home country without the hassle to switch providers, devices, or SIM cards is an important driver of the growth of MCS demand for more than two decades. The foundation for cross-border availability of MCS is international roaming (IR). IR in turn requires interoperable cellular network equipment based on global standards (e.g., GSM, UMTS, LTE) both in a customer's home and visited country as well as IR contracts between the involved mobile network operators (MNO)[2] (Shortall, 2010, p. 1). Providers in the home countries (domestic providers) charge a specific retail IR tariff whereas providers in the visited countries (visited providers) bill domestic providers a stipulated wholesale IR tariff (Martino, 2007, p. 139; Office of Communications, 2011, p. 360).

In 2012, European MCS providers achieved a turnover of almost €142 bn of which about €5 bn were generated by the supply of IR services to end-customers within the European Union (EU) (European Commission, 2012; European Telecommunications Network Operators' Association, 2012, p. 8). The progressing integration in the EU is likely to trigger increases in cross-country travel intensity within Europe, at least in the medium and long run. More travel will evoke a growing demand for IR services (Infante and Vallejo, 2012, p. 736). Merry (2012, p. 4) predicts that European MCS providers will process an IR traffic volume in 2016, which will be 125% above the level in 2011.

Taking into account that on a global basis, MI traffic increased by 70% in 2012 (compared to 2011) and is expected to grow further at a compound annual growth rate of 66% until 2017 (Cisco Systems, 2013, pp. 3–5), it can be expected that a large proportion of future growth in IR service will not stem from established voice calling and SMS, but from Internet access and use via mobile networks. More specifically, worldwide mobile data roaming revenues are projected to grow by 21% per year and reach US$35 bn in 2017, representing 40% of total IR revenues (Juniper Research, 2012).

To date, consumers in the EU usually do not have the option to select an IR tariff, which is independent from their domestic tariff and provider. As a consequence, MNO do not strongly emphasize IR elements in marketing MCS bundles. Accordingly, the level of competitive intensity for IR services is very weak. However, recently the separate sale of IR and domestic MCS was made mandatory in article 4(1) of Regulation (EU) No 531/2012 (2012) in order to support the development of a more competitive intra-EU market for IR services: As of July 2014, domestic providers must enable their customers to access stand-alone IR services from any other IR provider (= alternative provider). Furthermore, customers will be able to access stand-alone mobile data services directly on the visited network regardless of existing contracts with domestic or alternative providers.

Acknowledging the forthcoming structural separation of IR service offerings from domestic MCS in the EU and the increasing global commercial relevance of both MI and IR services, empirical work on MI tariff type preferences of MNO customers and on antecedents of such preferences is of considerable importance. Such studies can support both current and potential alternative IR providers in designing pricing strategies for international MI service offerings. As to the best of our knowledge no such investigation exists, the goal of this research is to contribute toward closing this research gap.

The remainder of this paper is structured as follows: Section 2 introduces basic tariff types for MI service offerings. Furthermore, it points to factors, which explain biased customer tariff type choices. Section 3 outlines the data collection procedure and reports characteristics of our sample. Additionally, it introduces the statistical methods and the variable measurements. Empirical results are described in Section 4. Finally, Section 5 discusses implications of the empirical findings and highlights areas requiring further investigation.

1. SMS, MMS, and MI are subsets of mobile data services (MDS). In contrast to ‚conventional' MDS (e.g., SMS, MMS, WAP-based services), MI enables Internet Protocol (IP)-based access to value-added data applications/services providing the same experience as Internet access alternatives with a limited geographical reach (e.g., DSL, cable modem) (Gerpott, 2011, pp. 243-244).
2. MNO usually grant infrastructure access to mobile virtual network operators (MVNO) and service resellers against a payment of wholesale fees and thus enable them to offer MCS to end-customers. Since our work focuses on business relations between MCS suppliers and consumers, we use the term *provider* regardless of the ownership structures of the infrastructure. Thus, *providers* include MNO, MVNO, and resellers of MCS.