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Satisfaction of business customers with mobile phone and internet services in Spain☆

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ABSTRACT

Lately there has been a growing debate on the differences between business and residential telecom consumers. Yet, evidence on these differences is lacking. This study partially fills this gap by econometrically analyzing the drivers of satisfaction with mobile and fixed internet services for business clients in Spain. The results reveal that the factors that drive satisfaction for micro-enterprises and residential customers are similar, but the drivers of satisfaction for small and medium-sized enterprises (SMEs) are distinct. For example, alternative DSL operators outperform the incumbent for micro-enterprises, but not for SMEs. Overall, for both fixed internet and mobile services, operators with small market shares perform better than the incumbent, and business clients' satisfaction levels increase when they perceive that they can switch operators. Finally, subscribing to mobile and fixed bundles and dealing only with one telecom operator increase SMEs' satisfaction.

1. Introduction

Ample empirical evidence supports the idea that the diffusion of information and communications technology (ICT) services is an important driver of economic growth (Gruber, Hätönen, & Koutroumpis, 2014). For example, Czernich, Falck, Kretschmer, and Woessmann (2011), using Organization for Economic Co-operation and Development country level data compiled between 1996 and 2007, found that broadband adoption has a significant positive impact on national annual per capita growth, estimated at 0.9–1.5% for every additional 10% increase in broadband penetration. Similar results have been reported in other areas, like China (Kumar, Stauvermann, & Samitas, in press) or the Small Pacific Island States (Kumar, Kumar, & Patel, 2015). Moreover, a recent survey of the literature indicates that ICT services have also had a positive significant effect on business productivity (Cardona, Kretschmer, & Strobel, 2013). Hence, ICT services play a key role in entire industries and sectors.

Traditionally, regulatory bodies assumed that large commercial customers enjoyed high bargaining power, which largely reduced the risks of abuses from dominant telecommunications operators. However, the increased competition brought about by alternative networks (cable) and by local loop unbundlers in the residential segment, together with the economic

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crisis, has highlighted the competitive problems faced by European enterprises, a market segment where incumbent operators still have an important stronghold, and has brought the traditional *laissez-faire* regulatory approach into question.

Combined with the well-established notion that digital markets must play a crucial role in the economic recovery of Europe (Gruber et al., 2014), this has resulted in electronic communications regulators' growing interest in the business segment. Several authorities have looked into the ways operators market their services to enterprises and questioned whether such offers cater adequately to their needs. National regulatory authorities (NRAs) such as the former Spanish Comisión del Mercado de las Telecomunicaciones (CMT, 2011) or the British Office of Communications (OFCOM, 2010) and private stakeholders such as WIK (Godlovitch, Monti, Schäfer, & Stumpf, 2013) have published studies that reflect on the differences between mass market and high-end users, focusing on the special needs of the latter, and emphasizing the importance of telecommunications services for national productivity. Unsurprisingly, the 2014 Explanatory Note of the European Commission (EC) Recommendation on Relevant Markets has for the first time distinguished the mass retail market from the high-quality retail market, also acknowledging differences in the related wholesale markets and, in this way, has opened the door to NRAs considering business and residential customers separately (European Commission, 2014).

Given these trends, an empirical study was conducted to identify the main drivers of satisfaction with mobile and fixed internet services in Spain for micro-enterprises, small and medium enterprises (SMEs), and large firms. When possible, the results were compared with the drivers of satisfaction for residential consumers to identify distinct competition and market conditions in each segment. The results can provide policy makers and telecom managers with insight into the business market.

This is the first study that deals with data on the drivers of business clients' satisfaction for both mobile and internet services. Gijón, Garín-Muñoz, Pérez-Amaral, and López-Zorzano (2013) published a study based on survey data from 2009 on the drivers of Spanish residential consumers' satisfaction with cell phone services. The present paper is based on a survey of business consumers carried out between 2010 and 2011 and deals with both mobile and fixed internet services. Therefore, some of the drivers of consumer satisfaction in the present study are firm-related.

The previous paper (Gijón et al., 2013) comprehensively reviewed the literature based on surveys from residential customers from 2000 to 2012, which mainly dealt with mobile services. They classified studies into two types: confirmatory studies[1] that test specific theories of consumer satisfaction (e.g., the American Customer Satisfaction Index model (ACSI) or the European Customer Satisfaction Index model (ECSI)) and exploratory models[2] that identify the drivers of consumer satisfaction without using a theoretical framework. Like Gijón et al., the present study sought to identify drivers without using a theoretical framework. The studies reviewed by Gijón et al. identified consumer satisfaction as the main determinant of customer loyalty and most found that the quality of service and the company's reputation are important drivers of consumer satisfaction. The few studies focused on fixed internet services also refer to residential customers, see for example the Federal Communications Commission report (FCC, 2010).

The present study provides insights into the key drivers of satisfaction with mobile and internet services in the business sector. Briefly, the main results are as follows. First, the paper corroborates the idea that micro-enterprises are similar to residential consumers, with similar satisfaction drivers for the mobile markets that differ from those of SME's. Second, when enterprises perceive that they can switch telecom operators easily, satisfaction levels increase. Third, in the internet market, alternative digital subscriber line (DSL) operators with small market shares outperform the incumbent for micro-enterprises. However, in the mobile market, where companies' market shares are more aligned, they do not. Finally, other factors that raise satisfaction levels are having a single telecom operator and subscribing to bundles of fixed and mobile services.

The rest of the paper is organized as follows. Section 2 presents the data used in this study. Section 3 describes the empirical models for business customers' satisfaction with mobile and fixed internet services, and Section 4 concludes.

2. The data

The data used for the empirical analysis were collected from December 2010 to February 2011 in a survey commissioned by CMT (now integrated within the Comisión Nacional de los Mercados y la Competencia, CNMC). The survey aimed to evaluate satisfaction with telecom services in the business segment through telephone interviews with company managers responsible for ICT contracts. The descriptive results of the survey were published by CMT (2011).

The sample consisted of 1511 companies representative of Spanish enterprises. It excluded telecom operators. As most Spanish enterprises are micro-enterprises (i.e., they have <10 employees) sample quotas were required to ensure a minimum number of enterprises of every size (micro-enterprises, SMEs, and large companies). Therefore, to produce unbiased estimates at the national level, sampling weights were derived by taking into account the size of the company, the economic sector, and the region where the company had its main premises.

[1] See Turel and Serenko (2006), Martensen, Gronholdt, and Kristensen (2000) and Vranakis, Chatzoglou, and Mpaloukas (2012).

[2] See Gerpott, Rams, and Schindler (2001), Kuo, Wu, and Deng (2009), Kim, Park, and Jeong (2004), Eshghi, Haughton, and Topi (2007), Leelakulthanit and Hongcharu (2011) and Khayyat and Heshmati (2012).