

Chapter 3

Adoption of Mobile Video–Call Service: An Exploratory Study

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ABSTRACT

Mobile video-call services have been available to the general public for almost ten years, but although they were described as one of the killing applications for mobile communications, mobile video-call adoption and the business volume generated by this service has stayed at significantly low figures, and scarce research has focused on it. This exploratory study aims to explain the factors which may help to predict mobile video-call acceptance, based on three consolidated technology acceptance theories (the Technology Acceptance Model, the Theory of Planned Behavior, and the Innovation Diffusion Theory) and considering service-specific factors. The study was conducted based on surveys among Spanish users and non-users of the service during 2011, and data was analyzed using a Partial Least Squares approach.

The main results from the study confirm the influence of the variables from Technology Acceptance Model –perceived ease of use and perceived usefulness– and of perceived compatibility on the adoption of this service. Although self-expressiveness was also found to be an antecedent of perceived usefulness, all other variables –personal innovativeness, subjective norm, perceived behavioral control, perceived cost, and perceived quality of service– were found to have no influence on the adoption of mobile video-calls. Other important findings are the critical role played by perceived usefulness, the existing gap between attitudes, intentions and actual use, and the role of perceived cost in the adoption of mobile video-call. Other findings and recommendations for future research are also discussed.

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INTRODUCTION

Along history it has been noticeable how difficult it is for a company to launch a new product or service to market, since the welcome of the innovation by customers is unpredictable and customers usually make their evaluations over the final product. But before the product arrives to the public, there is a long road to walk. This starts with an idea usually originated on the observation of unfulfilled customer needs and the perspective of a new market opportunity. Nevertheless, the perception of those needs has a subjective nature and it may lead to mistakenly choose to create a new product bound for failure.

There are plenty of examples, such as Sony's *MiniDisc*, where a product, albeit technologically more advanced than the previous one, did not find its place in the market. And, on the other hand, very successful and popular services like the Short Message Service (SMS) were not expected to be widely adopted by consumers, since it was necessary to push a significant amount of keys in order to use it... on a phone! However, SMS became widespread, with users even creating special messaging languages in order to be able to use it. And meanwhile, only the nostalgic ones remember the *MiniDisc*.

So, considering all the cost and time it takes for a company to develop and create a new product or service, and with the dark clouds of failure on the horizon, when facing survival and prevalence on the market a crucial question arises: what leads a user to adopt or reject a product/service?

That same question has been posed during the last years in regard to the mobile video-call service. Promises have been made by carriers and manufacturers about an impending boom in the use and adoption of this service, along with big revenues and improvements in mobile communications. But world-wide adoption of this service is progressing very slowly and this boom is yet

to be witnessed. Moreover, the reasons behind this slow adoption rate are not clear, and scholar research of the factors involved in mobile video-call adoption is alarmingly scarce.

Therefore, it is of great interest to understand the underlying factors behind mobile video-call adoption because this understanding will highly help carriers and manufacturers to plan appropriate marketing strategies. Thus, this exploratory study aims to explain the factors which condition the adoption of mobile video-call service from a user's perspective. The achievement of this goal will have two more implications: first, it will lead to a better comprehension of the mobile video-call service adoption process; but it will also help to give useful advice to operators and manufacturers about the relevant factors to be taken into account for the successful deployment of this service.

In order to do so, we will take a widely used adoption model (the Technology Acceptance Model) as a starting point. Then, we will proceed to further expand it with the addition of relevant factors from other acceptance theories and specific service-related factors. This approach is not new in the field of mobile service adoption (Lee, Kim & Chung, 2002; Lin & Wang, 2005; Lin & Liu, 2009).

This chapter is structured as follows: in the next section, we present a historical overview of the mobile video-call service; then, we will build the research model and formulate our hypotheses based on the review of: 1) three adoption models and the factors used for this study –including an elaboration of the nomological relationships among them–; and 2) relevant literature in the field of mobile services' adoption. Next, we will make a description of the survey designed to test the hypothesized model and we will present the results of the empirical data analysis. After data analysis, we propose a discussion of the main findings and implications derived from the study, its limitations and lines for future research.

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