What are the Keys to a Successful Mobile Payment System? Case of Cytizi: Mobile Payment System

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ABSTRACT

Scholars and practitioners agree that the future of payment is mobile contactless payment (MCP). However, while many projects concerning the implementation of MCP solutions have been started, MCP is still not available in most countries. Concerning this fact, studies on the obstacles to MCP implementation conclude that the formation of interorganizational relationships (IORs) is an important aspect to the success of any MCP project. In this study, the authors research the influence of organizational culture on IORs in the French MCP service, Cityzi. They conducted interviews with executives of the main organizations involved and collected data about the organizational culture using a quantitative questionnaire. The results revealed that the organizations involved in Cityzi emphasize a developmental culture that drives innovation and competition between the organizations involved, which leads to rivalry between them. The authors conclude that the centralized structure around a coordinating organization that displays a group culture supports the implementation of MCP systems.

KEYWORDS
Cityzi, Interorganizational Relationships, Mobile Contactless Payment, NFC, Organizational Culture

1. INTRODUCTION

Over the last decade, mobile information technology (IT) has made remarkable improvements. Smartphones and other mobile devices got more and more powerful and reached a substantial market penetration, coupled with decreasing prices for such devices. A comparable development is also evident for wireless network technology; transfer rates and network coverage increase, and prices for wireless data transfer contracts and other services constantly decrease. This led to a situation in which a large majority of the population owns high-end mobile devices with the capability to access the internet independently from their location. Other technologies that extend the functionality of mobile devices, such as Near Field Communication (NFC), also reached a substantial maturity level (Ming 2011; Ondrus & Pigneur 2007). With the combination of these technologies, smartphones and NFC, novel mobile services, such as MCP, can be realized. Several studies (Au & Zafar 2008; Dahlberg, Mallat, et al. 2008; Hu, Li, & Hu 2008; Ondrus & Pigneur 2006, 2008; Pousttchi 2003) conclude that the benefits of MCP are far-reaching; on one hand, it allows a faster and more convenient payment process at the point-of-sale, and, on the other hand, it is capable of supporting additional customer services, such as digital membership cards. However, while the technology made great advances and is ready for the implementation of a nationwide MCP service (Ondrus & Pigneur 2007), the industry is still caught in a series of more or less successful trials.

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This inefficient series of trials in the implementation of MCP services motivated information systems researchers (ISR) to identify the particular obstacles to MCP. Therefore, several studies conclude that the success of MCP implementation does not depend primarily on technological aspects but, rather, on the complexity of the necessary collaborations among different organizations (Dahlberg, Huurros, & Ainamo 2008; Ondrus, Lyytinen, & Pigneur 2009; Sammer et al. 2012; Silic, Back, & Ruf 2014).

A study by Ondrus et al. (2009) summarized the current state of the art and analyzed three failed MCP projects in Switzerland to conclude that the first necessary step for a successful MCP implementation is to build up IORs. The important role of IORs is also confirmed by another study conducted by Sammer et al. (2012), which reports evidence that some market actors, which are necessary for the implementation of mobile contactless payment services, even actively hinder the development of MCP services.

Hence, the existing research indicates that the formation of IORs between certain market actors is a necessary requirement in the implementation of MCP services, but organizations are approaching this issue in different ways. In any case, research suggests that, for a successful MCP implementation, organizations have to reach out beyond their borders and actively support and create the necessary IORs. Concerning the formation of IORs, research further suggests that the organizational culture (OC) of the concerned organizations is an influencing factor to this process (Cadden, Humphreys, & McHugh 2010; Steensma et al. 2000). In the context of MCP, this aspect has not yet been researched, and our knowledge is still limited. Thus, research may identify IORs as a crucial factor (e.g. Au & Zafar 2008; Dahlberg, Huurros, et al. 2008; Dahlberg, Mallat, et al. 2008; Ondrus et al. 2009; Sammer et al. 2012), but no study has yet explored the role of OC in the domain of IORs in MCP. To contribute to our understanding of this formation process, this study explores the influence of OC on the formation of IORs in the implementation process of MCP services. To target this issue, we apply the competing values model of organizational culture (Denison & Spreitzer 1991) and carry out a single case study on an MCP implementation in France. We explore the following research question:

What is the influence of organizational culture and interorganizational relationships in the implementation of MCP services?

We found that the organizations involved in Cityzi emphasize a developmental culture that drives innovation and competition between the involved organizations, which leads to rivalry among them. We conclude that the centralized structure around a coordinating organization that displays a group culture supports the implementation of MCP systems.

This means that the competition and rivalry between organizations remains a major obstacle to the implementation of MCP, which can be overcome only if organizations cooperate and form IORs with the objective of establishing a complex system such as MCP.

Our research thus extends the existing theory on MCP implementation from an interorganizational perspective by researching, in particular, the influence of OC on the formation of IORs. We further contribute to the broader context of IOR theory and OC theory by exploring the interplay of these constructs in a new context with unique characteristics.

The results also support practitioners and governments by deriving recommendations for the implementation of an MCP solution. This is particularly relevant as several organizations have already invested considerable effort and assets in the implementation of MCP services, and new MCP projects are continuously triggered. A deeper understanding of the influencing factors is, therefore, crucial and reveals important recommendations.

The remainder of the paper is organized as follows: Section 2 discusses the related theory and defines theoretical propositions. Section 3 discusses the methodological approach and describes the case selection. Section 4 reports on the results, and Section 5 discusses the implications for theory and practice, as well as the limitations of the study.
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