

Mobile Merchandising

Exploring new business practices in the mobile payment ecosystem

Aakanksha Gaur

aakanksha.gaur@essec.edu

David Avison

david.avison@essec.edu

Jan Ondrus

jan.ondrus@essec.edu

Abstract

Only a few mobile payments trials have been successful, many only partially. Failure may be explained by the lack of merchant involvement during the early stages of design. Previous researchers have suggested that high costs, lack of ease of use and interoperability issues might explain the lack of adoption by merchants. However, little research has been conducted to investigate the actual usage of mobile payments by merchants. This pilot study addresses the gap by adopting a practice-based lens to explore new and alternative business practices that emerge for merchants with the usage of mobile payments. Based on Indian cases, we reflect on the different business practices that emerge due to the symbolic attributes of technology and interaction with consumers.

Keywords: mobile payments, merchants, practice-based lens, India.

Mobile Merchandising: Exploring new business practices in the mobile payment ecosystem

1. Introduction

1.1 Motivation for this research

The rising prevalence of electronic commerce and the extensive use of mobile devices have made mobile payments an interesting method of payment for consumers and merchants. Some early researchers were enthusiastic about the potential success of mobile payments (Ding & Hampe, 2003; Herzberg, 2003). Despite this enthusiasm mobile payments have not witnessed equal success in all the continents of the world (Ondrus & Pigneur 2007a). Although, mobile payments have been reasonably successful in Asian countries such as Japan, South Korea and Hong Kong (e.g., Mobile Suica, Octopus, and Moneta), European and North American ecosystems still remain fragmented and under-developed (Dahlberg et al. 2008; Castonguay & Holland 2010).

A Mobile payment ecosystem is orchestrated by a set of interdependent firms that develop interrelated mobile payment products and services. Mobile payments are platform-based services, that are multi-sided (Rochet & Tirole, 2003). The demand side and the supply side of the mobile payment market are both crucial in orchestrating the ecosystem. Considerable attention has been paid to the demand side; that is, the users (e.g. Dahlberg et al. 2003; Mallat 2007; Zmijewska et al. 2004). Researchers have argued that the key to the adoption of mobile payments is in the hands of the user (e.g. Dahlberg et al. 2003; Lei-da & Nath 2008; Pousttchi 2003).

However, the supply side of the mobile payment market (i.e., banks, operators, technology providers and merchants) has not received much attention from the research community (Ondrus & Pigneur 2007b). Dahlberg & Mallat (2002) posit that new mobile payment solutions are typically “pushed” to consumers by the efforts of payment platform providers (i.e., banks, financial institutions, and operators). Furthermore, mobile payments are considered as a disruptive

technology (Walsh, 2004). A technology is considered disruptive when its utilization leads to the creation of products and services products with different performance characteristics that have not been valued by existing consumers (Ondrus & Pigneur, 2005; Walsh, 2004). In niche areas such as mobile credit recharge, digital content (e.g., ring tones) mobile payments offer better value to the consumers as they are simple and easy to use. In a country such as India where the number of mobile phone subscribers exceeds the number of bank account holders, mobile payments might end up replacing cash in services such as remittances, bill payments and ticketing. Following up on the drive to push ticketing services through mobile, Indian Railway Catering and Tourism Corporation has enabled ticket purchase through short message services (SMS)¹. This initiative would allow people to book their tickets directly through the mobile device and save the time lost in standing in long queues and save the commission which is paid to the travel agents. This also implies reaching out to the people who possess only a basic knowledge of mobile phone usage such as sending SMS and making phone calls. A similar contention is presented by Ondrus & Pigneur (2005) who posit that disruptive technologies are simpler, cheaper and are initially adopted by customers at the low end of the market. Markides (2006) suggests that disruptive innovations are less likely to be driven by the customer side. Therefore, investigating the supply side of the mobile payment market is crucial to understand the development of mobile payments.

Merchants are an important component of the demand side as well as they accept mobile payment instruments. Merchants are also the issuers of the mobile payment instrument. Thus, merchants are on both the demand side and the supply side of the mobile payment market. A demand side perspective to study the merchant adoption of mobile payments has already been proposed (Mallat & Tuunainen 2008). However, a supply side perspective on merchants has not yet been addressed in the literature. Therefore, in this paper we focus on the merchants from a supply side perspective wherein they provide mobile payment services to consumers.

¹ https://www.irctc.co.in/beta_htmls/SMS_USSD.html

Dahlberg et al. (2008) contend that research in mobile payments should look at how business practices have changed in response to changes in the financial, telecommunications and information and communication technology (ICT) environment. Some studies have stressed the emergence of alternate and new practices with respect to the introduction of new technologies. Barley (1986) shows how the same technology (i.e., CT scanners), led to two diverse organizational structures of radiological departments. The paper establishes the co-evolution of technology and organizational structure where a similar technological change results in diverse structural change in institutionalized roles and interaction patterns of employees. In a similar vein, Orlikowski (2000) demonstrates that through engagement with a technology (and some of the inscribed features) in their ongoing practices, users enact diverse technologies-in-practice. In particular, she contends that factors as diverse as users' motivation, interpretive knowledge, social structures and organizational culture produce different kinds of technologies in practice. Based on these factors, different types of technologies in practice occur such as limited use, collaboration, individual productivity, collective problem solving, process support, and improvisation.

Technologies-in-practice imply the particular structures of technology use that users enact when engaging recurrently with a technology (Orlikowski, 2000). Accordingly, technologies-in-practice are considered as a structure. People, while using a technology, draw on the properties of the technology (mobile payment technology in our context): the material properties (e.g., the mobile device) and the properties inscribed by the designers (e.g., short message service). In addition, people also draw on their skills, knowledge, assumptions and expectations about a technology (Orlikowski & Gash, 1994). Lastly, users also enact different technological structures based on their experiences with the various social, cultural and institutional context in which they work (e.g., the mobile payment ecosystem and the actors in the ecosystem).

Research on technology and the usage of technology in practice has evolved. Accordingly, the body of research surrounding technologies in practice has extensively focused on both micro level

phenomena (e.g., personal interest, motivation and social meaning of technology) and macro level phenomena (e.g., inter-firm relations and institutional voids) (Orlikowski, 2000; Schultze & Orlikowski, 2004; Zorina & Avison, 2011). Although such studies have generated insights on how practices alternative to those originally designed for a technology emerge (Orlikowski, 2000), research has primarily focused on practices in relation to the firms' employees and external stakeholders, with little attention paid to key aspects such as changing properties of the technology, the institutional arrangements and the structure of relationships among industry actors. As, Orlikowski (2000) suggests “*examining other kinds of technologies offering different properties to those of Lotus Notes would generate further opportunities to study how users draw on different conditions to enact particular types of technologies-in-practice with particular social consequences. Similarly, exploring different cultural (e.g., non-U.S.) and institutional (e.g., governmental, educational) contexts to those studied here would also expand our understanding of how users recurrently structure their use of technologies in different circumstances.*” Thus, there is a need for further investigation of the different institutional contexts and examination of the technologies with different properties to enhance our knowledge about the conditions in which alternative or new practices emerge. This present paper starts to address this issue.

In the contemporary world the nature of technology, the organizational and the industry structures have evolved. Thus, as technology and industry structures evolve, new and alternative practices will emerge. For example, consider the case of M-PESA, a mobile banking solution meant for the unbanked population (i.e. people who do not have a bank account), deployed in Kenya by Safaricom, a mobile network operator. Research suggests that the symbolic meaning developed by the end users played a crucial role in the way that the technology was used. Thus, despite the fact that the project was initially created by the bank and other partner agencies to provide a system facilitating microcredits, end users developed “*multiple uses for M-PESA that are unrelated to the ones initially designed*” (Hayes & Westrup, 2012). These uses included sending remittances to

people who ran out of cash, a way of keeping money safe, especially on journeys, and saving travel expenditures (Morawczynski & Miscione, 2008).

In the context of mobile payments, two issues are particularly relevant; firstly, the properties of a technology and secondly, the institutional factors and contexts. The payment technology has evolved from stationary to mobile, one that is able to reach out to different locations and is ubiquitous. Mobile payments are also considered as a disruptive technology, one that might end up displacing cash and credit cards (at least partially). Furthermore, a single piece of technology (e.g., mobile payment technology) is appropriated by the efforts of different actors that traditionally belong to different industries that have varied interests and work dynamics. In addition, the actors in the mobile payment ecosystem are interdependent as none of them has the resources to orchestrate an ecosystem on their own. Thus, the new practices of a particular actor are likely to depend upon its interactions with other actors in the ecosystem.

We address these concerns by exploring the new and alternative business practices with appropriation and usage of a different technology and different institutional arrangements. In doing so, we consider mobile payment technology as the technology in question, retailers (service providers) as the key actor and the mobile payment ecosystem as the institutional context.

1.2 Research Question, Context and Potential Contribution

Our research is guided by the following central question: *What are the implications of using mobile payments for merchants that result in the enactment of alternative business practices through the interactions among the actors in the mobile payment ecosystem and how do these practices emerge?*

To address this question we adopt a practice perspective (Orlikowski, 2000), which focuses on the everyday work activities of the retailers (merchants or service providers) in the mobile payment

ecosystem. Since, the mobile payment solutions are provided through the efforts of multiple actors that come from different industries, the usage of such solutions implies interacting with those actors and in a broader institutional context. Furthermore, the mobile payment ecosystem is characterized by a high interdependency and by a particular interplay of actors and their roles which need to be carefully distinguished (Pousttchi & Hufenbach 2012). This further implies that the practices of an actor would be dependent on the work practices and activities of other actors in the ecosystem.

India is chosen as the research setting for several reasons. First, India has been largely unstudied in mobile payment research. Second, Asian countries such as India have an increasing user base of mobile phone usage. Third, India has about 870 million mobile subscribers and is adding 10 million a month which implies opportunities for tapping into the population that do not have a bank account or cannot have access to banks and other financial institutions (Radjou, Prabhu, & Ahuja, 2011). Fourth, the structure of the retail sector in India is particularly interesting. Ninety three percent of the retail sector in India is unorganized (Deb, 2012), and is dominated by a large number of small retailers consisting of the local *kirana* shops, owner-manned general stores, chemists, footwear shops, apparel shops, local betel leaf and tobacco shops. Furthermore, unorganized retailers normally do not pay taxes and most of them are not even registered for sales tax, value added tax, or income tax. A final reason is the widespread practice of *Jugaad Innovation* in India. Jugaad innovation is a frugal and flexible approach to innovation that is dominant in India. Jugaad implies overcoming harsh constraints by improvising an effective solution using limited resources (Radjou et al., 2011).

YES BANK, a leading private bank in India, provides an example of such innovation. It has implemented a mobile payment solution that allows money transfer via mobile phones without the need for a bank account.

This study has some potential contributions to the emerging research on mobile payments. First, this study explores the new practices with a technology that has different properties. Second, it contributes to our understanding of the emergence of new practices in the mobile payment ecosystem, which is characterized by interdependence and complex institutional arrangements. Third, it looks at an emerging technology within the context of a developing country such as India.

The remainder of the paper is organized as follows. The next section reviews the literature about mobile payments to introduce the key concepts in mobile payments and to provide an overview of the mobile payment ecosystem. The third section introduces the theoretical framework and argues for a practice-based view to the research question. In the fourth section, we specify the research setting and research methodology, which addresses the research question empirically. The fifth section discusses some of the preliminary results. Finally, the paper concludes with a discussion on the limitations and expected contributions.

2. Mobile Payment Ecosystem

A *Mobile Payment* is defined as any payment where a mobile device is used to initiate, authorize and confirm an exchange of financial value in return for goods and services (Au & Kauffman, 2008). Mobile devices can be used in different payment scenarios, such as payment for physical goods, digital content (e.g., ring tones, music, or games), tickets, utility bills, insurance premiums, and services. The key players in the mobile payment ecosystem (MPE) are consumers, financial institutions (banks and credit card companies), mobile network operators (MNOs), technology suppliers (mobile device manufacturers, payment terminal providers), newcomer intermediaries (payment service providers) and merchants.

Figure 1 depicts a simple form of mobile payment ecosystem, enlisting the key actors on the demand and supply side.

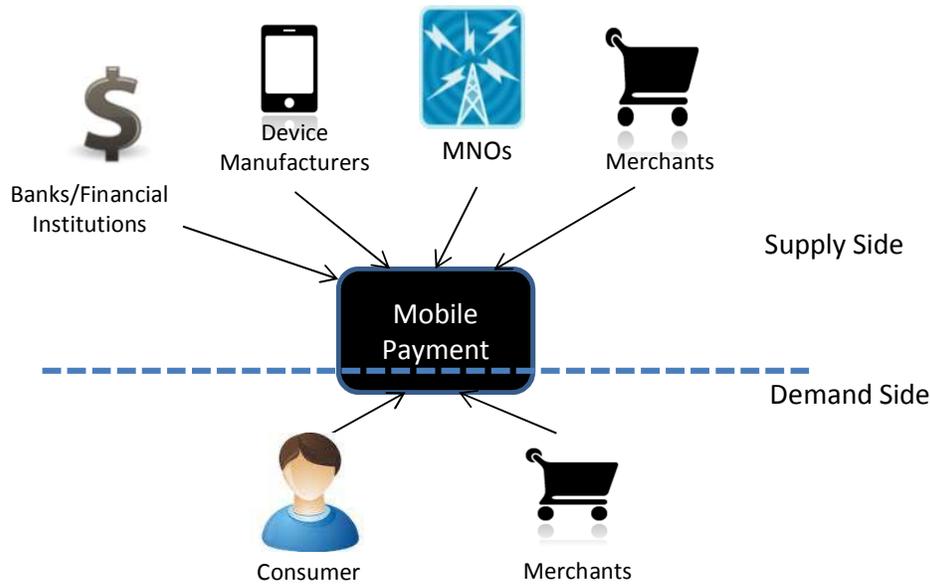


Figure 1. Mobile payment ecosystem.

Mallat (2007) proposes that reaching a wide enough initial adopter base of consumers and merchants is a critical success factor for mobile payments. As we have seen, altogether, a substantial body of research offers insights into the adoption and acceptance aspects of mobile payments from a consumer's perspective (Chandra et al. 2010; Dahlberg & Oorni 2007; Mallat 2007) and a merchant's perspective (Mallat & Tuunainen 2008). Although, there are a plenty of useful insights about the adoption and acceptance phenomenon, the post adoption issues such as variations in the business practices are left unexplored. Furthermore, the actual usage of mobile payments and the interactions with other actors in the ecosystem have not been investigated fully.

The participation of merchants is crucial for the successful deployment of mobile payment services. Merchants need to participate in large numbers to generate positive network externalities (Rochet & Tirole, 2003). Involvement of merchants is also necessary to create indirect network effects. For example, MNOs and banks would prefer to be a part of payment systems that are widely accepted

by merchants. Dahlberg et al. (2008) posit that the active participation of merchants is vital in promoting mobile payments. In addition, merchants can disrupt the mobile payment market by launching their own services (Ondrus & Pigneur 2005; Ondrus & Pigneur 2006). Despite these advances regarding the role of merchants in the mobile payment ecosystem, our knowledge about how merchants participate in the ecosystem remains limited.

In addition, some research (Mallat & Tuunainen 2008; Teo et al. 2005; van der Heijden 2002) points to barriers such as high costs, complexity (lack of ease of use) and the interdependence between consumers and merchants at an early stage of development. Another strand of research advocates that the incompatibility of mobile payments with existing business is one of the main barriers to merchant adoption (Mallat & Tuunainen 2008). However, the number and diversity of studies on merchants is disappointing (Dahlberg et al. 2008).

3. Practice-Based View

Practice theory is associated with the constructs and concepts developed by Bourdieu (1990). He argues that actors collectively construct and transform the habitus or the field (the mobile payment technology and the usage in our context) through their practices based on the capital that they have. Furthermore, the actions of individuals are the outcome of the relationship between the habitus, capital, and field. Social actors are endowed with habitus, formed as a result of past experiences and possess capital in the form of resources and knowledge about a particular phenomenon. Thus, while interacting with a field, actors employ habitus and capital.

The practice lens to study technology in organizations proposed by Orlikowski (2000) extends and develops arguments about technology expressed in structuration theory. According to her, a practice-based lens is used to examine how people, interacting with technology in their everyday practices, enact different technological structures. From a practice perspective, users of a

technology possess autonomy to “enact” certain characteristics of a technology in ways that suit their needs and interests. For example, users may enact technological feature as designers had originally intended, or they may improvise the technology to enact and to develop unintended patterns of use (Cousins & Robey, 2005). Thus, alternative or new practices emerge.

A practice-based lens to understand technologies-in-practice contends that the technological structure is emergent. Furthermore, technology is based on situated use and on-going continuous change and enactment. For example, consider the usage of mobile payment technology by merchants. They interact with mobile devices, messages on their phones and other peripherals. Further, their interaction with technology is shaped by their interactions with other actors in the ecosystem such as consumers, banks, and MNOs. A practice perspective can provide interesting insights about change and emergence of new practices as it focuses on what individuals do in relation to their position in organizational and institutional contexts (e.g., their interactions with other actors in the ecosystem).

This argument coincides with the empirical evidence that people redefine and modify the meaning and the properties of technology even after development (Rice & Rogers, 1980). As Orlikowski (2000) puts it: *“A practice lens assumes that people are purposive, knowledgeable, adaptive, and inventive agents who engage with technology in a multiplicity of ways to accomplish various and dynamic ends. When the technology does not help them achieve those ends, they abandon it, or work around it, or change it, or think about changing their ends.”* (p. 423-424). A practice lens assumes that there is recursive interplay between an individual's action and a particular technology (mobile payment technology in our context) that leads to the enactment of the same technology into different types of technologies-in-practice.

Practices are clusters of recurrent human activity informed by shared institutional meanings (Cetina, Schatzki, & Von Savigny, 2000; Schultze & Orlikowski, 2004). Through repeated and

regular engagement with a technology (in particular conditions), people constitute a set of rules and resources based on which people enact different technological structures and uses. A practice-based lens directs attention to how macro level phenomena are constituted by microinteractions and how those microinteractions, in turn, are shaped by macro influences and effects. The micro level in this study refers to the individual actors in the mobile payment ecosystem (retailers and merchants in particular). The macro level refers to the technological structures that merchants constitute through recurrent usage of mobile payments. This study investigates how the macro level (i.e., the technological structures) is shaped by the work practices of the actors at the micro level (merchants in our context). In particular, we explore how and under what conditions new and alternative work practices emerge because of the recurrent use of mobile payments.

4. Research Method

We design this study as an exploratory and descriptive qualitative study. This research is designed as descriptive because it aims at presenting what alternative business practices emerge due to the usage of mobile payments. Furthermore, this study is classified as exploratory as it aims to discover the reasons that lead to the emergence of such alternate practices. Given the nature of the research question asked i.e., the “how” and the “what,” an exploratory study is an appropriate approach. Qualitative research enables us to grasp complex phenomena and relate them to their real-life context (Yin, 1981). It brings forth meaning and underlying mechanisms, and is therefore particularly appropriate for investigating practice. Moreover, as the context and the conditions are crucial to understand the work practices, a case study approach is the most appropriate one because this understanding can be gained by investigating the phenomenon in real context and in greater depth (Myers & Avison, 2002; Yin, 2008). However, contingent on the topic and the research question, a case study can be explanatory, exploratory, or descriptive. In our study the research

question is of the type “How” and “What”. Therefore, a combination of exploratory and descriptive case study fits well with the research context.

This study follows a qualitative comparative case study design based on multiple data sources. In the Indian context, two mobile payment solutions are currently being used. One is Interbank Mobile Payment System (IMPS) and the other one is Airtel Money. Although, both the solutions are specific cases of mobile payment solutions provided by Indian organizations, IMPS is a solution largely offered by a semi governmental banking association (National Payments Corporation of India: NPCI) while Airtel Money is provided by Airtel, a private mobile network operator.

To ensure methodological triangulation, in our study we will employ both primary and secondary data. Triangulation involves using more than one method to collect data, such as interviews, observations, questionnaires, and documents. Primary data in our case includes semi structured interviews and field notes. Secondary data sources includes industry reports and other relevant documentations. The number and diversity of respondents ensures that common patterns are observed and identified accurately. In addition, based on field data and a thorough coding process of the data, we will arrive at major themes that could be used to categorize the business practices.

5. Preliminary findings

As part of our pilot study which precedes the main study to follow. We contacted three merchants based in New Delhi and experts² who are involved in mobile payments. At this stage, the interviews were done over the telephone and through Skype. On average, interviews lasted 30 minutes.

Interview topics included the background of the organization and the employee, mobile payment solution used, devices used, past practices, current interaction patterns with consumers and future goals with regard to mobile payment usage. An insight that emerges from our data is that there

²The authors would like to thank Mr. Nitin More, Mr. Ajay Vijh, Mr. Manish Choffla (NPCI) and Ms. Namrata Khanna (NPCI).

exists a distinction regarding the business practices for small and big retailers. We identified four primary changes in the business practices of the merchants.

1. Limited use of hardware such as peripherals.

As one employee working with a retail store mentions,

“We do not use physical point of sale terminals; we now have a tablet and use it to accept payments.”

An expert closely involved with the launch of mobile payment solutions, explains the above reflection. *“Typically points of sale (POS) systems contain a computer running billing software along with other peripherals like a credit swiper, cash drawer, pole display etc. Virtual POS is a web-based application that can run within the mobile browser and interact with peripherals like a swiper to process transactions. The peripheral connects using the audio jack port or use a Bluetooth protocol to transfer data while processing transactions. In fact it helps reduce the use of large bulky peripherals.”*

The micro-level practices, specifically alternative technologies-in-practice, are shaped by the institutional conditions. In particular, the interactions between different institutions further modify the practices. In this case, to provide one example. a technology provider (i.e., EzeTap) in conjunction with a bank (i.e., Citibank) is providing a low cost card reader (it costs 1500 Indian National Rupees, about 25 US dollars), which can be attached to any mobile device such as a mobile phone or tablet. The card reader can record signatures on a touch screen with a stylus. Thus, merchants do not require POS terminals and swiper instruments. In addition, retailers do not need to print charge or payment slips as consumers are notified by means of a short message service. Thus, the practices of retailers (limited use of peripherals and less number of charge slips) are brought to

effect by the institutional actors (banks, technology providers and regulatory authority: Reserve Bank of India) an arrangement among the institutional actors.

Small merchants do away with physical POS terminals completely, while big retailers view this as an opportunity to offer loyalty schemes and discount promotions to their clients.

2. Real time adjustment of business processes.

One of the respondents handling the IT division of a big retail store adds a second business practice, *“We push incentives, and discounts, manage offers for registered customers, and adjust the discounts real time.”*

Another expert mentions, *“Mobile payments are valuable in pushing incentives and discounts using the customer’s location (which is termed a location based service). If a restaurant is running a promotion during off peak hours, it would be pushed as a notification onto my mobile – let us say an additional 10% off peak hour rates. If I opt for the offer, I could redeem it by going into the restaurant and getting the additional discount. In this case, the restaurant needs to perform real time adjustment of discounts as the customer has accepted the offer and is ready to redeem the same.”*

3. Disintermediation of foreign players.

Feldman & Orlikowski (2011) draw attention to the need for a better understanding of the link between organizational change and practices, as well as the underlying processes. When an actor interacts with other actors in the ecosystem, new business practices might emerge which consequentially can lead to alteration of the institutional and organizational structure. A similar insight was gained during a telephone interview with a kirana store owner. Entry of local players in the mobile payment market can see the exclusion of foreign players from the market. One possible reason for such practices is that local players are considered more trustworthy than foreign players

are. Furthermore, retailers can identify better with those local brands as the symbolic meaning attached with the logo of the mobile payment solutions (in this case IMPS solution). Figure 2 depicts the logo of the IMPS solution provided by NPCI, which contains the colors of the Indian National Flag.



Figure 2: The IMPS logo

As a kirana store owner said,

“VISA and MasterCard are foreigners, I do not trust them. They cheat us. I trust IMPS and my bank. I use IMPS for mobile payments because it has the national flag and is provided by government.”

4. Record keeping.

The usage of mobile payments is also likely to change the way work is organized in the shop floors and how other resources are put into use. It also implies convergence of professional and personal work space. The merchants especially are now using their personal contact numbers for professional usage as well i.e., accepting money from consumers.

“I waste a lot of paper. I have two mobile numbers: Vodafone, Airtel. I have to put papers on the wall to show the mobile numbers so that customers can pay. Then, I have to make a daily list of which customer paid to which number. The bank also sends a message for each payment so my mobile phone is full of messages. Sometimes, by mistake I delete the message of my friends.”

6. Conclusion and Limitations

This paper describes a pilot study, which explores how business practices of merchants have changed with the usage of mobile payments. This study has shown that the usage of mobile payments is likely to change the business practices and work practices of the merchants. The preliminary results indicate that such practices could emerge due to the following reasons:

1. Different way of interactions with other actors such as consumers in the ecosystem.
2. Symbolic meaning of the mobile payment technology, in particular the symbolic meaning associated with the logos.
3. Enhanced trust over local players than over foreign players.

Focusing on the usage of mobile payment technology by merchants within the mobile payment ecosystem, this study specifically considers a current technology and a relatively newer institutional arrangement i.e., the mobile payment ecosystem. Furthermore, this study is also likely to contribute towards the limited stream of literature surrounding the role of merchants in mobile payments by considering the underlying conditions that modifies the usage of mobile payments by merchants.

The study has contributions to the literature on mobile payments and also to practice theory. As mentioned in the paper, the current literature in mobile payments only spans the adoption and acceptance issues and does not consider how a particular technology is used. From an information system perspective this is crucial as previous research has shown that users construct different meaning and properties of technology while using it and thus enact different and alternative uses of a technology. This study also enhances the practice-based lens to study technologies because it looks at a different technology in question (i.e., mobile payments), a different institutional arrangement (i.e., mobile payment ecosystem) and a different cultural setting (i.e., India).

Our preliminary findings contend that the type of changes in business practices differ for small and large merchants. In our main study we will investigate such issues further in greater detail. The institutional conditions (Orlikowski, 2000) i.e., the role of the regulatory authority (i.e., the Reserve Bank of India and other regulatory authorities) is also crucial in explaining how practices are shaped and this also demands further investigation.

Clearly, there are some limitations in our pilot study. We only consider the solutions that are launched and being used by retailers across major cities, such as New Delhi and Mumbai.

Furthermore, there are some other solutions in the Indian mobile payment market but most of them are in the early trial stages only and are currently being rolled out in Mumbai and Chennai.

Futhermore, at this stage there is not enough information whether those trials solutions will be rolled out successfully in the future or not. In our future study we will analyze the cases in real time by doing observations (i.e., ethnographic studies).

This study aims to provide an analysis in a developing country context, and the conditions found here might be different than those present in the developed world. Even within the context of developing countries, India represents a unique research setting. India has a large market with many local and small players. The presence of small and local players in the mobile payment market makes India a very competitive market. Our preliminary results of the pilot study suggest that the full study will be fruitful in providing reflections on the different business practices that emerge due to the symbolic attributes of technology and interaction with consumers, using the example of merchant adoption of mobile payment systems in India.

References

- Au, Y., & Kauffman, R. (2008). The economics of mobile payments: Understanding stakeholder issues for an emerging financial technology application. *Electronic Commerce Research and Applications*, 7(2), 141–164.
- Barley, S. R. (1986). Technology as an Occasion for Structuring: Evidence from Observations of CT Scanners and the Social Order of Radiology Departments. *Administrative Science Quarterly*, 31(1), 78–108.
- Bourdieu, P. (1990). *The logic of practice*. Stanford University Press.
- Castonguay, A., & Holland, N. (2010). *Mobile Payments Gain New Momentum in Evolving US Market*.
- Cetina, K. K., Schatzki, T. R., & Von Savigny, E. (2000). *The practice turn in contemporary theory*. Routledge.
- Chandra, S., Srivastava, S. C., & Theng, Y.-L. (2010). Evaluating the Role of Trust in Consumer Adoption of Mobile Payment Systems: An Empirical Analysis. *Communications of AIS*, 2010(27), 561–588.
- Cousins, K. C., & Robey, D. (2005). Human agency in a wireless world: Patterns of technology use in nomadic computing environments. *Information and Organization*, 15(2), 151–180.
- Dahlberg, T., & Mallat, N. (2002). Mobile Payment Service Development - Managerial Implications Of Consumer Value Perceptions. In S. Wrycza (Ed.), *Proceedings of the 10th European Conference on Information Systems (ECIS), Gdansk, Poland, June 6-8*.
- Dahlberg, T., Mallat, N., & Öörni, A. (2003). Consumer acceptance of mobile payment solutions - ease of use, usefulness and trust. *Proceedings of the 2nd International Conference on Mobile Business (ICMB), Vienna, Austria, June 23-24*.

- Dahlberg, T, Mallat, N., Ondrus, J., & Zmijewska, A. (2008). Past, present and future of mobile payments research: A literature review. *Electronic Commerce Research and Applications*, 7(2), 165–181.
- Dahlberg, T, & Oorni, A. (2007). Understanding Changes in Consumer Payment Habits - Do Mobile Payments and Electronic Invoices Attract Consumers ? *System Sciences 2007 HICSS 2007 40th Annual Hawaii International Conference on*, 6(2006), 1–10.
- Deb, M. (2012). Evaluation of customer's mall preferences in India using fuzzy AHP approach. *Journal of Advances in Management Research*, 9(1), 29–44.
- Ding, M. S., & Hampe, J. F. (2003). Reconsidering the Challenges of mPayments: A Roadmap to Plotting the Potential of the Future mCommerce Market. *Proceedings of the 16th Bled eCommerce Conference, Bled, Slovenia, June 9-11*.
- Feldman, M. S., & Orlikowski, W. J. (2011). Theorizing practice and practicing theory. *Organization Science*, 22(5), 1240–1253.
- Hayes, N., & Westrup, C. (2012). Context and the processes of ICT for development. *Information and Organization*, 22(1), 23–36.
- Herzberg, A. (2003). Payments and banking with mobile personal devices. *Communications of the ACM*, 46(5), 53–58.
- Lei-da, C., & Nath, R. (2008). Determinants of mobile payments: an empirical analysis. *Journal of International Technology and Information*, 17(1), 9 – 20.
- Mallat, N. (2007). Exploring consumer adoption of mobile payments - A qualitative study. *Journal of Strategic Information Systems*, 16(4), 413–432.
- Mallat, N. (2007). Exploring consumer adoption of mobile payments – A qualitative study. *The Journal of Strategic Information Systems*, 16(4), 413–432.
- Mallat, N, & Tuunainen, V. K. (2008). Exploring Merchant Adoption of Mobile Payment Systems: An Empirical Study. *eService Journal*, 6(2), 24–57.

- Markides, C. (2006). Disruptive Innovation: In Need of Better Theory. *Harvard Business Review*, 19–25.
- Morawczynski, O., & Miscione, G. (2008). Examining trust in mobile banking transactions: The case of M-PESA in Kenya. *Social dimensions of information and communication technology policy* (pp. 287–298). Springer.
- Myers, M. D., & Avison, D. (2002). *Qualitative Research in Information Systems: A Reader*. London: Sage Publications.
- Ondrus, J., & Pigneur, Y. (2006). Towards a holistic analysis of mobile payments: A multiple perspectives approach. *Electronic Commerce Research and Applications*, 5(3), 246–257.
- Ondrus, J., & Pigneur, Y. (2005). A Disruption Analysis in the Mobile Payment Market. *38th Annual Hawaii International Conference on System Sciences (HICSS'05)*. IEEE Computer Society.
- Ondrus, J., & Pigneur, Y. (2007a). An Assessment of NFC for Future Mobile Payment Systems. *International Conference on the Management of Mobile Business ICMB 2007* (p. 43).
- Ondrus, J., & Pigneur, Y. (2007b). Cross-industry Preferences for Development of Mobile Payments in Switzerland. *Electronic Markets*, 17(2), 142–152.
- Orlikowski, W. J. (2000). Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations. (M. S. Ackerman, C. A. Halverson, T. Erickson, & W. A. Kellogg, Eds.) *Organization Science*, 11(4), 404–428.
- Orlikowski, W. J., & Gash, D. C. (1994). Technological frames: making sense of information technology in organizations. *ACM Transactions on Information Systems (TOIS)*, 12(2), 174–207.
- Pousttchi, K. (2003). Conditions for acceptance and usage of mobile Payment Procedures. *Proceedings of the 2nd International Conference on Mobile Business (ICMB), Vienna, Austria, June 23-24*.

- Pousttchi, K., & Hufenbach, Y. (2012). Mobile payment in the smartphone age: extending the mobile payment reference model with non-traditional revenue streams. *Proceedings of the 10th International Conference on Advances in Mobile Computing & Multimedia* (pp. 31–38).
- Radjou, N., Prabhu, J., & Ahuja, S. (2011). Use Jugaad to Innovate Faster, Cheaper, Better. *HBR Blog Network*.
- Rice, R., & Rogers, E. (1980). Reinvention in the Innovation Process. *Knowledge: Creation, Diffusion, Utilization* (pp. 499–514).
- Rochet, J.-C., & Tirole, J. (2003). Platform Competition in Two-Sided Markets. *Journal of the European Economic Association*, *1*(4), 990–1029. doi:10.1162/154247603322493212
- Schultze, U., & Orlikowski, W. J. (2004). A Practice Perspective on Technology-Mediated Network Relations: The Use of Internet-Based Self-Serve Technologies. *Information Systems Research*, *15*(1), 87–106.
- Teo, E., Fraunholz, B., & Unnithan, C. (2005). Inhibitors and facilitators for mobile payment adoption in Australia: A preliminary study. *Proceedings of the 4th International Conference on Mobile Business (ICMB), Sydney, Australia, July 11-13*.
- Van der Heijden, H. (2002). Factors Affecting the Successful Introduction of Mobile Payment Systems. *Proceedings of the 15th Bled eCommerce Conference, Bled, Slovenia, June 17-19*.
- Walsh, S. (2004). Roadmapping a disruptive technology: A case study The emerging microsystems and top-down nanosystems industry. *Technological Forecasting and Social Change*, *71*(1-2), 161–185.
- Yin, R. K. (1981). The case study crisis: some answers. *Administrative science quarterly*, *26*(1), 58–65.
- Yin, R. K. (2008). *Case study research: Design and methods* (Vol. 5). SAGE Publications, Incorporated.

Zmijewska, A., Lawrence, E., & Steele, R. (2004). Classifying m-Payments - a User-centric Model.

Proceedings of the 3rd International Conference on Mobile Business (ICMB), New York, USA, July 12-13.

Zorina, A., & Avison, D. (2011). Discovering Practices and Technologies of New ICT-Enabled

Transformative Organizations. *Proceedings of the SIGPrag International and Interdisciplinary practice workshop*. Helsinki, Finland.