# Mobile Technology Usage in Business Relationships



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## INTRODUCTION

Business relationships have been studied for decades (Wilkinson, 2001). However, the literature has been criticized of the lack of focus on information technology (IT) usage within business relationships (Reid & Plank, 2000). As managers have started to employ digital tools such as the Internet, intranets, and extranets, buyer-seller relationship scholars have realized the need to focus on IT deployment within relationships. There is a growing body of research that focuses on the different types of technologies being employed such as electronic data interchange (EDI) (Naudé, Holland, & Sudbury, 2000), Internet-based EDI (Angeles, 2000), and extranet (Vlosky, Fontenot, & Blalock, 2000) and their influence on business relationships. Nevertheless, mobile technology usage within business relationships is a nascent field of scientific inquiry.

Besides buyer-seller relationship literature, mobile commerce (MC) (conducting commercial activities via mobile networks) literature also noticeably lacks academic research on business usage of mobile technology (Okazaki, 2005; Scornavacca, Barnes, & Huff, 2005). By combining these indications for further research from the buyer-seller relationship and MC fields it can be argued that there is a clear call for research in this area. Hence, I aim to bridge some aspects of the identified research gap. The research gap is filled in by discussing bonding within buyer-seller relationships to illustrate how mobile technologies create a novel bond in business relationships. It is acknowledged that some research on the adoption of mobile technology in the business context exists (see e.g., Kadyté, 2005).

The paper is organized as follows: First, a brief discussion of the background of business relationships, mobile technologies, and bonding is provided. Then, I highlight how mobile technologies are used within relationships with a case study. After that, future trends in this pertinent area are presented. The paper finishes with a concluding discussion.

## BACKGROUND

Basically, it can be stated that both the popular as well as academic press has regularly indicated that the number of relationships that exist between buyers and sellers has decreased, but the amount of trade contracted within existing relationships has simultaneously increased. The fact remains that in many cases, it is not profitable to play dozens or even hundreds of competing suppliers or customers off against each other, but working directly with a few of them within a business relationship is profitable for all parties. This is because, as the number of possible partners increases so do the transaction costs. Thus, it is evident that existing business relationships are a vital area for research.

Within the business relationships domain there are multiple and overlapping fields of inquiry (Ritter & Gemünden, 2003) that have provided specific frameworks applicable to different types of problems. Here, I use the bonding discussion as it provides a means to evaluate changes occurring in business relationships. A bond can be seen as a building block for a relationship that is created through interaction between business parties. Academic literature to date has identified 10 bonds that are pertinent in business relationships: technical, time, knowledge, legal, economic, geographic, social, cultural, ideological, and psychological (Wendelin, 2004). Bonds have an important role in value creation and destruction in business relationships.

Social bonds were the starting point of studies focusing on bonding (McCall, 1970). Before a business relationship is built through business exchanges, there are many distances between the two interacting companies. Johanson and Wiedersheim-Paul (1975) identified social, cultural, technological, and time-related distances. For example, social distance measures the extent to which the actors are unfamiliar with each other's ways of thinking and working. Bonding is seen to reduce the distances. This paper focuses on technical bonds.

Technical bonds play a crucial role when business parties are interacting. For example, if company A produces mobile phones and company B is a supplier of components, over time company A and B will usually create interfacing processes in which, for example R&D teams can meet to plan how new products can be produced in the most effective way. Hence it might be the case that company B adjusts its production so that it is more suitable to company A or buy some machinery specifically to deliver the new subassembly to company A. This type of adaptation and mutual planning of the manufacturing process within the business relationship can be seen as one type of technical bonding that has a crucial role in the development of business relationships.

Technical bonds usually refer to connections in the manufacturing process (Wendelin, 2004); however, an exception to this view is provided by Perry, Cavaye, and Coote (2002). IT-based bonds are considered to be a subset of technological bonds. Bonding can have two opposing impacts depending on the context. It can either have a positive impact on a business relationship as it may enhance interfacing processes—this happens with mobile technologies in the business relationship of the Alpha-Zeta case study—or it can have a negative impact, as it may hinder cooperation with other parties. This can happen if a company has intensive bonding with directly competing companies. In the contract-based software development business for mobile phone manufacturers this may be the case.

Still, it can be stated that not all business relationships that managers engage their companies in are valuable and effective enough. Luckily, the current IT field provides many new applications that can be deployed interorganizationally to make existing business relationships even more valuable and profitable. One of these tools is mobile technology, more fashionably called the mobile solution. These mobile technologies provide a wide array of opportunities to enhance interorganizational processes. Here, I focus on wireless local area network (WLAN)-based infrastructure and personal digital assistant (PDA)-based mobile solutions.

Currently, mobile technologies enable individual business people to check e-mails, place orders, and log in to company networks from the road (Aungst & Wilson, 2005). Some of the mobile devices are connected to Internet networks, such as wireless application protocol (WAP) phones, while others are unconnected, such as PDAs that are subscribed to services like Avantgo and Vindigo, which are unconnected services. More specifically, in a business context MC can be deployed internally or interorganizationally. Within an organization MC can be used to enhance selling activities in the form of sales force automation (SFA) (see Aungst & Wilson, 2005). Interorganizationally, MC can be used to mobilize customer relationship management (Sinisalo, Salo, Karjaluoto, & Leppäniemi, 2006) or it can be deployed with the help of WLAN or Wi-fi and smart devices (such as PDA, hybrid phones, Blackberries). WLAN deployed uses 802.11b standard, and it is connected to a local area network (LAN). MC and mobile technologies have been studied mainly from the consumers' point of view in recent years. The use of MC in relationships is studied even less and there are no studies, as far as I know, that employ empirical research. Based on this, it is essential to examine how mobile technologies can be employed to enhance order-delivery processes in a relationship.

## DEPLOYMENT OF MOBILE TECHNOLOGIES IN THE ALPHA-ZETA BUSINESS RELATIONSHIP

In essence, methodological choices are guided by the purpose of research. The basic aim of this paper is to deepen and expand existing knowledge regarding business relationships and how mobile technology may be used to enhance those relationships. This goal calls for a case study method (see e.g., Yin, 1989), as a case study provides detailed and rich information of one focal phenomenon. More specifically, the case is a relationship that is composed of two companies interacting with each other. The perspective of both parties needs to be studied to be sure of the value of the findings (John & Reve, 1982). Based on thorough secondary information sources, I selected a business relationship from the steel industry. This industry was chosen as the empirical context because computerization has a long history in the industry and new technologies play a central role (Chaffey, 2004). Research on the usage of mobile technologies and solutions in the steel industry context is scarce. Therefore, it can be argued that the steel industry context is worth studying, especially when companies are employing novel mobile solutions to enhance their business. In this study, the steel mill is called Alpha and the steel workshop is labeled Zeta. To be more precise, the narrow context of the Alpha-Zeta business relationship is steel processing, that is, the hardening and marketing of steel plates and components. I used semistructured in-depth interviews that were transcribed and analyzed accordingly. I also used several additional sources of information such as documents, minutes of meetings, industry reports, and plant visits to validate research results (see e.g., Patton, 1987). The data triangulation employed here increases the validity and reliability of the research (Eisenhardt, 1989). The identities of the case study companies and the informants are not revealed for confidentially reasons.

The Alpha-Zeta business relationship is now 6 years old and is based on and developed from a previous 40-year business relationship that still exists between Alpha and Beta. Zeta was established to serve Alpha's needs by hardening steel qualities from 5mm up to 60mm. When the relationship was initiated, all activities related to the order-delivery process were manual, that is, handled physically. In brief, Alpha has relatively high IT skills and uses enterprise resource planning (ERP), customer relationship management (CRM), and supply chain management (SCM) systems as well as traditional office systems. At first Zeta had limited IT skills but managed to acquire and implement a small scale, first generation ERP system. Until 2004, almost the whole order-delivery process was digitized with the help of the ERP systems that were integrated over the Internet. From here on, I focus on the development and usage of mobile technologies.