

Chapter III

A Methodology and Framework for Extending Mobile Transformations to Mobile Collaborations for SMEs

Ioakim (Makis) Marmaridis

IMTG Pty Ltd and University of Western Sydney, Australia

ABSTRACT

Enabling interorganizational collaboration for SMEs holds a lot of promise for increased competitiveness and global reach in a connected economy (Ripeanu, 2008; Marmaridis, 2004; Ginige 2004). An earlier book (Marmaridis & Unhelkar, 2005) examined the unique constraints that SME organizations have in embracing new technology – such as mobile technology. The solution proposed for overcoming these constraints is a methodology that is referred to as m-transformation (Marmaridis, 2006). Building on this work, this chapter now presents the next step in SME evolution, mobile collaboration (m-collaboration). The chapter details the concerns that must be overcome for SMEs to start collaborating rapidly with each other. It examines the role of trust in collaboration and provides a methodology suitable for handling the variation of trust throughout each collaborative engagement. It also presents a conceptual framework that can be used to implement the methodology and empower SMEs into embracing collaboration and realizing tangible benefits from it. Aspects of the methodology and conceptual framework have been presented in a number of international conferences already (Marmaridis, 2005); this chapter, however, puts the pieces together and presents the methodology and framework in their entirety. Upon completing this chapter, the reader will have a very good understanding of the landscape of collaboration in the SME space. Furthermore, the reader will be familiarized with the field-tested mobile collaboration methodology for SMEs and the conceptual framework for implementing it in real life.

INTRODUCTION

Mobile collaboration for SMEs has proved to be an elusive goal. Even though the term has been in the foreground of research circles (Marmaridis & Unhelkar, 2005; Looney, 2004) and commercial vendors (Spellman, 1997) for long time, actual tangible benefits are yet to be seen. The promises for operational efficiencies and streamlined processes that mobile collaboration advocates have been offering to organizations of all sizes are yet to be delivered for SMEs.

Mobile collaboration is defined as the intersection area of three key variables, mobile technology, mobility in the workforce and changing collaborative processes (Looney, 2004, Litiu, 2004; Arbab, 2002). Figure 1 below graphically represents this definition:

This chapter builds upon previous work on a methodology for M-Transformation for SMEs (Marmaridis & Unhelkar, 2005). This previous work explored the need and obstacles that SMEs face in adopting mobility as a practice for their internal operations. This chapter expands upon this area and provides insights into how SMEs can expand their use of mobile technology into achieving mobile collaboration in practice. The chapter first presents a brief overview of collaboration from traditional to electronic collaboration and mobile collaboration. Then it examines the barriers to enter mobile collaboration and analyses each of those offering mitigation strategies in the form of a methodology. The methodology covers not only technical issues

in regards to mobile technologies, it also takes into account organizational change and people issues to provide a holistic approach in dealing with the adoption of mobile collaboration for SMEs. Finally the chapter closes with the presentation of conceptual framework for the adoption of mobile collaboration by SMEs. This framework incorporates suggestions and steps from the methodology and enriches those with additional considerations about openness, security, accessibility, maintainability and other key factors that affect the rate of successful adoption of mobile collaboration (Marmaridis, 2005) in the SME space.

BACKGROUND TO MOBILE COLLABORATION FOR SMEs

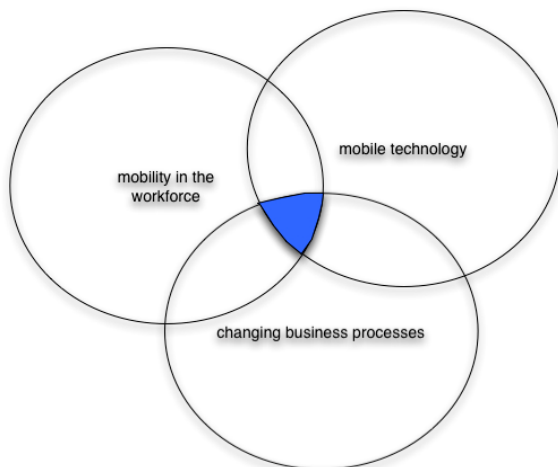
The author's experience both academically and professionally in the field of inter-organisational collaboration has shown that there is a very different rate of adoption between collaboration strategies for larger enterprises and SMEs. In the related field of mobile collaboration, the situation is very similar as well. Large organizations with distributed workforce spread across large geographic distances are investing heavily on mobile collaboration. The author's observations, reflection and analysis of real life projects suggest that mobile collaboration for SMEs is constrained by issues that exist in the research sphere as well as at the operational technology sphere. The research related questions that remain inadequately answered, if at all can be summed in the following statements:

- Whilst there is abundance of technology (Arbab, 2002; Dustdar, 2004), mobile collaboration is not realizing its full potential in the SME space
- Why are SMEs in particular finding it very hard to adopt such innovative technical solutions facilitating mobile collaboration
- What are the necessary pre-requisite steps an SME must take before they can successfully tackle the mobile collaboration opportunity.

At the technology level, some of the current issues include:

- Lack of benchmarks for comparing technologies that otherwise claim to fulfill the same organisational needs
- Lack of metrics for demonstrating return on investment (ROI) to SMEs that consider mobile collaboration

Figure 1. Defining mobile collaboration in terms of people, processes and technology



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