Survival in the Digital Era: A Digital Competence-Based Multi-Case Study in the Canadian SME Clothing Industry

Dragos Vieru, Teluq University, Montreal, Canada
Simon Bourdeau, University of Quebec at Montreal, Montreal, Canada

ABSTRACT

Although the literature emphasizes the link between digital competence (DC) and IT adoption, there is a lack of understanding of how DC can be conceptualized in an SME context. Drawing on the literatures on SMEs and DC and on the change agentry perspective, this multi-case study proposes a multi-dimensional conceptualization of DC and empirically tests a typology of three DC archetypes of SME employees: Technical Expert, Organizer, and Campaigner. The results from a multi-case study of three Canadian SMEs suggest that the development of DC should focus on the complementarity nature of the technological, social and cognitive dimensions of the DC.

KEYWORDS

Campaigner, Canadian Clothing Industry, Case Study, Change Agentry, Digital Competence, Organizer, SME, Technical Expert

INTRODUCTION

To compete in global markets, small and medium-sized enterprises (SMEs) need to develop new business strategies and processes involving the utilization of information technologies (IT) (Bharadwaj & Soni, 2007; Nguyen et al., 2015; Kim et al., 2016). It has been shown that the ability of SME businesses to innovate relies on investments made in IT infrastructures, the success of which, in turn, depends on employees having expertise and the appropriate competences to maximize the IT use (Kotey & Folkner, 2007; Peltier et al., 2012). The literature suggests that SMEs, in general, have reduced human and financial resources and are therefore likely to be less ready to adopt new IT and change their business strategies (Cragg et al., 2013; Morgan-Thomas, 2015). A review of extant literature reveals that, for SMEs to benefits from IT, SME employees’ needs to better understand the challenges confronting SMEs that hinder the adoption and use of IT. Thus, SME employees need to have the appropriate digital competence (DC) (Caldeira & Ward, 2002; Ferrari, 2012). The ability to align business strategies with existing IT skills was found to have a significant impact on the level of IT adoption and use in a SME (Fillis & Wagner 2005; Bharadwaj & Soni, 2007). On one hand, SMEs need to adopt IT strategies to keep up with the digital economy. On the other hand, they lack employees with appropriate DC. But, how do SMEs’ managers assess what DC their employees have or need to have? The lack of a precise understanding of what DC is represents a significant challenge in determining if SMEs are capable to compete in the digital economy (Ashurst et al., 2012).

Competence in general is a widely-used concept, which represents different things to different people. The Oxford English Dictionary (Oxford Dictionaries, 2017) defines it as “the ability to do DOI: 10.4018/IJSODIT.2017010102
something successfully or efficiently”. This is a broad definition, which may explain why competence has been conceptualized as an umbrella-type of notion wrapping almost every attribute that might influence performance (Bassellier et al., 2001). In the context of a 21st century digitized society, DC is an essential life asset (Ala-Mutka, 2011) which represents a “set of knowledge, skills, attitudes, abilities, strategies, and awareness that are required when using IT and digital media to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively for work, leisure, participation, learning, and socialising” (Ferrari 2012, p.43). This long and detailed definition suggests that DC covers more than the plain know-how and technical skills usually associated with IT competence in an organizational context and accentuates the idea that DC must also take into consideration contextual/social aspects and be complemented by cognitive and socio-emotional knowledge, skills and attitude (Ala-Mutka, 2011).

The information systems (IS) literature on SMEs provides evidence that different levels of IT competence in the organizations studied are related to different levels of accumulated individual IT skills and knowledge in the organization. In particular, the development of internal IT skills combined with management’s knowledge and attitudes towards IT adoption and use create the competences required to achieve higher levels of success with IT use in SMEs (Dibrell et al., 2008). In the last two decades, much of the research in IS had adopted a more technical perspective of IT/DC competence (Marcolin et al., 2000) and has focused on identifying: 1) business managers technical skills (Bassellier et al., 2001); 2) IT specialists knowledge and skill (Seppanen, 2002); or 3) IT professionals’ personality characteristics (Bashein & Markus, 1997). One thing that should be highlighted, is that most past IS studies on individual DC had a relatively narrow and specific conceptualization of user. This approach is not wrong, however, in the 21st century, this perspective is too limited and tends to put more emphasis on technological aspects of IT use and limiting attention to other aspects, such as social environment sensibility and cognitive capabilities related to the effective adoption and use of IT (Burton-Jones and Grange, 2013).

All these definitions of IT/DC have one commonality: they all portray IT/DC as a multidimensional. Some conceptualizations tend to emphasize the practical and technical aspects of using IT (Marcolin et al., 2000), while others suggest that developing DC necessitates a focus on the acquisition of higher order thinking skills (Ferrari, 2012) in various areas (Calvani et al., 2008). Information technologies are more and more ubiquitous and the use of such technology is now spread across the different types of jobs, organizations’ levels and to accomplish a multitude of various tasks. However, as suggested by Lamb and Kling (2003) researchers should not only consider IT users (i.e. “the active agent in information system use”) as such, but more as social actors who are “simultaneously enabled and constrained by the socio-technical affiliations and environments of the firm, its members, and its industry” (Lamb & Kling, 2003, p.218). Thus, since SME employees are social actors who have to play many different roles (Lamb and Kling, 2003), the responsibility of “technology forecasting” as well as introducing and using new IT is often shared by all the employees of a SME (Bruque and Moyano, 2007). In such a situation, each SME employee has to become an agent of organizational change (Markus and Benjamin, 1996). Jones-Evans (1996) has shown how important specific SME employees are “in influencing the success of the small technology-based venture which they initiated (p.15)” and how these employees eventually influence IT adoption and use.

In sum, extant literature on DC provides a myriad of different conceptualizations of DC and reveals a scattered image that falls short of providing the clarity needed by scholars and managers alike to understand the multidimensional nature of this concept. Also, the literature on SMEs falls short of specifying what type of DC SME employees needs to have and has yet to offer a unified view on DC role is in the process of gaining value from IT-based business. Considering this gap in the literature, this study aims to propose a more encompassing conceptualization of DC. More specifically, we address the following research questions:
What does Mobile Mean?
[www.igi-global.com/article/does-mobile-mean/34072?camid=4v1a](www.igi-global.com/article/does-mobile-mean/34072?camid=4v1a)

Giving and Taking Offence in a Global Context
[www.igi-global.com/chapter/giving-taking-offence-global-context/7291?camid=4v1a](www.igi-global.com/chapter/giving-taking-offence-global-context/7291?camid=4v1a)