

## Chapter 9

# Exploring the Barriers to Electronic Collaboration

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### ABSTRACT

*This investigation reviews research literature on electronic collaboration (e-collaboration) with a view to collate relevant information to support e-collaboration knowledgebase, further research and encourage further collaborative engagements. E-collaboration has been described with various phrases such as information sharing, information exchange, knowledge sharing, social networking and joint working. This research categorised the challenges of e-collaboration into people, process and technology because all the issues identified in e-collaboration research are rooted in one of these categories. As e-collaboration is a source of competitiveness, businesses that fail to strategically adopt the phenomenon could lose out. A notable example of e-collaboration is crowdfunding which provides funding for start-up and small businesses. However, businesses that support e-collaboration strategy have the potential to have better competitive advantage with increased firm performance.*

### INTRODUCTION

Electronic collaboration (e-collaboration) has been described as information sharing, information exchange, joint working, social networking or knowledge sharing between two or more people over the internet for a common goal. This broad based definition is supported by Kock, & D'Arcy (2002) because e-collaboration in this context includes all forms of e-collaboration and it is not limited to the use of a computer. As an example, in modern times, mobile telephones can be used for e-collaboration because they have internet connectivity. People have collaborated online over a decade and the benefits are enormous (Nosek, & McManus, 2008; Turban, Bolloju, & Liang, 2011). According to them, although there are benefits accrued for e-collaboration, there are challenges causing discouragement among collaboration participants and organisational leadership. Inter-organisational learning and knowledge sharing are major benefits of e-collaboration (Choi, & Ko, 2012; Levy, Loebbecke, & Powell, 2003) and it encourages e-market relationships as well as better operational performance (Howard, Vidgen, &

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Powell, 2006; Power, Hanna, Singh, & Samson, 2010). Tufekci (2008) recognised the different types of internet users and recommend a differentiation to ensure e-collaboration participants have a common objective. The essence of e-collaboration is information sharing in one way or another with a common goal. There has to be a common goal in any e-collaboration effort because without a common objective, it may not be described as e-collaboration. Part of the challenges to e-collaboration could be derived from communication barriers to knowledge sharing which emanate from internal organisational people, processes and technology (Kock, 2008; Riege, 2005). Kock (2008) believe that e-collaboration technologies could hamper communication effectiveness in complex collaborative tasks because the communication media could be distorted or inadequate by design. In this circumstance, the design distortion compels e-collaborators to seek alternative remedy as a way of compensatory adaptation to avoid the barrier.

## **BACKGROUND**

The concept of e-collaboration is a subset of collaboration. Collaboration involves both electronic and non-electronic means of interaction between people, organisations and governments. A few of the tools of e-collaboration include e-mail, internet, wikis, online forums, chat rooms, web-conferencing, blogs, journals and crowdfunding platforms (Marks, 2011; Nosek, & McManus, 2008; Ordanini, Miceli, Pizzetti, & Parasuraman, 2011).

The level of e-collaboration has increased over a decade and the continued improvement in technology has supported its growth (Jean, Sinkovics, & Kim, 2014; Marks, 2011; Miri-Lavassani, Movahedi, & Kumar, 2010). As the development of the internet and associated tools get better and advanced, more opportunity for e-collaboration will become available (Haythornetwaite, 2005; Turban et al., 2011). Businesses that engage in e-collaboration have better competitive advantage (Nosek, & McManus, 2008). Firms use e-collaboration as an avenue for organisational coordination, learning and innovation towards competitive advantage (Fink, 2007). However, as much as many people, organisations and the governments engage in e-collaboration in one way or another, there are still challenges to the phenomenon in everyday life. Although technology has enabled the expansion of e-collaboration over a decade, Nosek, & McManus (2008) identified technology as a major challenge to the development and advancement of e-collaboration. This suggests that technology provided the necessary support for progressive e-collaboration in the past and technology also has the responsibility to resolve the challenges impacting e-collaboration today and the future.

There is no defined e-collaboration theory. E-collaboration is not confined to only computer science and it is relevant to many other areas of research including psychology, education, business and management. Different theories and arguments tend to give different focus to the subject of e-collaboration. In this research, the relevant key business and management theories for e-collaboration include social capital theory (Calabrese, & Borchert, 1996; Lin, 2002; Zheng, Li, Wu, & Xu, 2014), stakeholder theory (Ackermann, & Eden, 2011; Freeman, 1984) and computer-supported collaborative learning (CSCL) theory (Koschmann, 1996, 1999; Stahl, Koschmann, & Suthers, 2006). According to the stakeholder theory, there is need to manage the affairs of all stakeholders in a transaction in an efficient and effective manner (Ackermann, & Eden, 2011; Freeman, 1984). Therefore, e-collaboration can be classified as a business related or organisational transaction. Social capital is embedded in social network, which

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