

# Chapter 30

## Promoting Competitive Advantage in Micro–Enterprises through Information Technology Interventions

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### **ABSTRACT**

*The use of Information and Communication Technologies (ICTs) by Small and Medium Sized Enterprises (SMEs) have the potential to enable these businesses to grow through access to new markets and administrative efficiencies. However, the growth of the smallest of these SMEs which are micro-enterprises is hindered by their inability to adopt ICTs effectively to achieve competitive advantage. This chapter investigates how micro-enterprises can adopt ICTs to grow and achieve competitiveness. This investigation of a set of seven micro-enterprises took place through an interpretive field study in which action research was used to diagnose and treat the micro-enterprises with interventions through a process of “Information Technology (IT) Therapy”. This process involved providing individualized IT solutions to pressing problems and opportunities and the development of a longer-term IT project plan, customized for each of the businesses. The increase in competitiveness of these micro-enterprises was assessed using the Focus Dominance Model and their growth through a modified model of micro-enterprise growth based on the resource based view of the firm. This research also contributes with a unique set of skills and experiences that ITD innovators can bring in helping micro-enterprises achieve sustained growth and competitive advantage.*

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## **INTRODUCTION**

There is evidence to suggest that use of Information and Communications Technology (ICT) can play an important role on the growth of small businesses (Matthews 2007, Sullivan 1985, Qiang et al 2006, Raymond et al 2005). In this sense, IT can be employed to bring about increased competitiveness if it enables businesses to create new jobs, increase productivity and sales through access to new markets and administrative efficiencies (Qureshi 2005, Matthews 2007). These outcomes can be achieved through measurable improvements in the lives of people living with limited resources to sustain themselves. Duncombe and Heeks (2003) suggest that there is a role for the ICT intermediary in providing the needed information on markets, customers and suppliers. In their study of 1000 small business enterprises in the US, Riemenschneider et al (2003) found that businesses were prepared to overcome obstacles to IT adoption to achieve web presence. This is because pressures to keep with the competition and promote services to customers are greater than the obstacles to setting up websites. There is a sense that small and medium enterprises hold the promise of growing incrementally on existing capabilities, and providing a seedbed for the emergence of dynamic and efficient larger national firms (Levy 2001, Matthews 2007, Servon and Doshna 2000).

It also appears that the promise of eBusiness adoption by micro-enterprises can potentially provide these businesses with the ability to access new markets and reduce costs through administrative efficiencies (Brown and Lockett 2004, Pateli and Giaglis 2004). However, the use of ICT by Small and medium Sized Enterprises (SMEs) remains a challenge in both developed as well as developing countries (Schreiner and Woller 2003, Sanders 2002, Lichtenstein and Lyons 2001, Hyman and Dearden 1998, Honig 1998, Piscitello and Sgobbi 2004). In particular the opportunities opened up by the internet are limited in SMEs especially due to the challenges faced by globalization (Piscitello

and Sgobbi 2004). Small and medium sized businesses are seen to be organizations that employ less than 500 people and typically have problems adopting IT due to competitive pressures and underestimation of time taken to implement IT (Riemenschneider et al 2003). A form of small business being investigated in this paper is the micro-enterprise. Micro-enterprises are tiny businesses with fewer than 10 employees - often just one. The micro-enterprises studied in this paper are part of a Micro-enterprise development program. Such programs make loans and or provide classes to poor people to help them start or strengthen their businesses (Schreiner and Woller 2003).

The challenges faced by micro-enterprises make it even more difficult for them to adopt ICTs for competitiveness. In particular, Piscitello and Sgobbi (2004) suggest that the key barrier to the adoption of ICTs is not size but the learning processes followed by the firms and access to networks of similar internet enabled business services. While a great deal has been written about the challenges faced by micro-enterprise adoption of ICTs, little has been done to provide business models that enable micro-enterprises to use ICTs competitively. According to Grosh and Somolekae (1996), barriers to growth of micro-enterprises are access to capital, educational level of the entrepreneur, legal barriers and start-up financing. In their study of information systems for rural micro-enterprise in Botswana, Duncombe and Heeks (2003) suggest that the role of ICT in enabling information and knowledge is important for both social and economic development. They found that there was a reliance on localized, informal social networks for their information for rural micro-enterprise. Information from these networks was of poor quality and not readily available; it appeared to fail the poorest and most disadvantaged entrepreneurs. In this sense, ICTs can represent an unaffordable addition to costs and the benefits of using them are not always apparent (Duncombe and Heeks 2003, Matthews 2007, Southwood 2004).

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