

# Chapter 65

## Knowledge Management in Small and Medium Sized Enterprises

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*Category: Organizational Aspects of Knowledge Management*

### INTRODUCTION

In Europe, USA, Japan, Korea & Taiwan, which account for nearly 75% of the world's economic output, SME's contribute between 50-75% of the countries' GDP. Developing economies are also increasing the SME contribution rate to GDP. Large organizations represent only one per cent of enterprises throughout the world. A great deal of knowledge management (KM) practice and theorizing however has been based upon the issues facing large (and quite frequently multina-

tional) organizations. Understanding knowledge management within SMEs is fundamental to economic advancement, particularly if priorities and practices transferred from large organizations are sub-optimal or counter-productive.

This chapter provides some background upon the definition and nature of SMEs, highlighting some theoretical arguments for why knowledge management in SMEs may be different from larger businesses. It then explores knowledge management in SMEs in terms of knowledge features of SMEs, knowledge management practices of SMEs, and the impact of knowledge management within SMEs. Research highlighting aspects of differentiation amongst SMEs that impinge upon KM is introduced and future trends in the practice and study of KM in SMEs are summarized. The conclusion of the chapter is that evidence-based

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evaluation of KM in SMEs reveals realistic ways in which SMEs can gain benefit from knowledge management.

## **BACKGROUND**

### **Definition of SMEs**

There is some variation in the definition of small and medium sized enterprises in different countries. In the European Union the definition refers to a headcount of less than 250 and a turnover of not more than €50 million or a balance sheet total of not more than €43 million. In the US, the size standard varies by industry, but most commonly refers to less than 500 employees and turnover of less than \$31 million. In the Asian-Pacific region it refers to a maximum of 100 employees. The United Nations Industrial Development Organization (UNIDO) definition is less than 250 employees, but also highlights a number of qualitative indicators of features of management, personnel, organization, sales, buyer relationships, production, research development and finance. The definitions of small and medium sized enterprises (SMEs) draw attention to the fact that there are contextual socio-economic considerations when considering the capability and potential of such enterprises and that there can be considerable variation within such organizations.

### **Theoretical Arguments for why Knowledge Management in SMEs may be Different from Larger Businesses**

The size of an organization clearly affects its knowledge flows. Transactive memory refers to the “tendency for individuals to assign certain information and memory tasks to one another once close relationships have been established; however, the number of close relationships that can be included in any transitive memory system is

limited by the social channel capacity of the actors” (Serenko *et al.*, 2007:619)). The authors showed how above 150 employees that knowledge sharing decreases “due largely to increased complexity in the formal structure, weaker interpersonal relationships and lower trust, decreased connective efficacy, and less effective communication” (p 610). The size of an organization also bounds its internal knowledge resources. Thong (2001) showed how information systems adoption in SMEs benefits from firms having effective mechanisms for drawing upon specialist external expertise. Davenport (2005) showed how the geographic proximity of similar firms and centres of research excellence can figure in knowledge acquisition in SMEs. Decision processes in SMEs frequently have a locus around the owner-manager (entrepreneur). This means that perceptions of need, approach towards change and prioritization may be rooted in their knowledge, attitudes and skills.

Smaller organizational size also locates firms in more turbulent environments where the maintenance of long term strategy is more problematic. Furthermore smaller organizations face resource constraints including access to finance to adopt forefront systems and technologies.

It can be seen therefore that the SME context is distinctly different from that of larger firms in ways that can impact upon knowledge management. Five aspects of context affect knowledge management in SMEs. These are: (1) turbulence of their environment (and associated difficulties in maintaining strategy), (2) more immediate organization-wide interaction, trust and communication (with less prevalent silos of knowledge), (3) a narrower range of technical expertise (creating less sophisticated practices overall), (4) a decision process locus around the owner-manager (impacting upon both the openness to the concept of knowledge management and the utilization of KM practices), and (5) potentially lower technological needs and resource constraints (limiting the use of IT systems within KM).

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