

# Chapter 10

## Intellectual Property Protection and Process Modeling in Small Knowledge Intensive Enterprises

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### ABSTRACT

*Knowledge-based assets, intellectual property, and capital play a fundamental role in an enterprise's competitiveness, especially in small knowledge intensive enterprises. Small knowledge intensive enterprises need to create new ways of operating in order to manage the intellectual and knowledge-based assets in their organizations more efficiently. Organizational knowledge and intellectual property can be protected, either formally via IPR, or informally via efficient knowledge management. Successful IP protection requires systematic intellectual property and knowledge management. Intellectual property protection via efficient knowledge management affects the entire organization rather than being just a separate task. It needs to be embedded in organizational work routines, practices, and processes as an overall operational strategy. When embedded in organizational work processes, IP protection and knowledge management become a continuous part of work routines and tasks in the enterprise, not a separate action.*

### INTRODUCTION

Technological know-how alone is not enough to ensure success in competitive, rapid growth markets. Companies have to find other approaches to improve their performance and position in the markets and to remain competitive. Knowledge-based assets, intellectual property, and capital

play a fundamental role in an enterprise's competitiveness, especially in knowledge intensive enterprises. In the 1990s enterprise managers began to notice the importance of these assets. Knowledge-based assets are intangible and are often present only in employees' heads. This fact has led to two concerns: First, the risk of losing that key organizational knowledge (e.g., through employee mobility) and secondly, the need to develop that knowledge (Coleman & Fishlock,

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1999; Kalpic & Bernus, 2006; Randeree, 2006). The attention focused on this subject has created the need to manage organizational knowledge more efficiently and hence, to create new ways of operating in order to manage an organization's intellectual and knowledge-based assets. Small enterprises have certain advantages over larger corporate entities: they are able to respond quickly to changing market demand, they are organizationally flexible, and they often have efficient internal communications (Cordes et al., 1999; Moguee, 2003). As a result, small enterprises can more easily incorporate new working practices and processes into their operations.

The aim of this article is to examine the ways in which knowledge and *intellectual capital* is managed in small knowledge intensive enterprises and to discuss the factors that influence a small enterprise's propensity to adopt processes and practices<sup>1</sup> to secure their intellectual property and knowledge. Furthermore, the focus of this article is to make recommendations as to why and how small enterprises can secure their intellectual property and knowledge. The study emphasises knowledge protection and the development of knowledge management systems and processes that support knowledge sharing and creation, innovativeness, and knowledge protection. The analysis will focus on intra-organizational activity. In order to understand the phenomenon as a dynamic, tactical, and operational process; the phenomenon is investigated from two perspectives: Intellectual capital management and knowledge management (Wiig, 1997).

The article starts with a short introduction on the theoretical background of intellectual capital management and knowledge management; focusing on intellectual asset management strategy, intellectual property protection, knowledge creation, and transfer strategy. The main definitions and concepts are presented in this section. The first section also includes a brief description of the study sample and the methods used in the data collection and analysis. The second section dis-

cusses the methods, practices, and processes used by small enterprise managers in order to protect their embodied knowledge. Also, the value of these mechanisms in the process of intellectual property protection will be evaluated. Factors that might have an influence on an enterprise's propensity to manage and protect their knowledge will be discussed. The section will end with a discussion of the different knowledge categories; in addition to examining the knowledge process cycle and its relation to intellectual property protection. The final section of the article summarizes the results of the study.

## **BACKGROUND**

The importance of capturing and managing intellectual capital (intangible assets) has been acknowledged in several research studies (e.g., Coleman & Fishlock 1999; Kitching & Blackburn 1998; Miles et al. 1999). However, the protection of knowledge has attracted very little attention among information systems and management researchers. The focus of the existing studies has been mainly on knowledge creation, knowledge acquisition, and knowledge sharing (Bloodgood & Salisbury, 2001; Liebeskind, 1996; Randeree, 2006). Small business and innovation researchers have investigated knowledge and intellectual property protection in small- and medium-sized enterprises (SMEs); focusing mainly on legal forms of intellectual property protection (IPRs) such as patents, trademarks, and copyrights. A central finding in previous research studies was the importance of the skills embodied in human capital: skills that cannot be protected through traditional, formal intellectual property protection (protection granted by national Intellectual Property Rights – IPRs). This intellectual capital is often only in employees' heads and it is not externalized or formalized in any particular way. Since the mobility of qualified employees is rather high, the need to capture and protect embodied

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