



The impact of Heisenberg Uncertainty Principle in IPR and SME Innovation Management * [the contribution from the MAC-SSIIM Project **]

ABSTRACT

Innovation management is a natural process in all organizations, as it is a driver of human evolution – and there is a wide range of innovation levels and their impact in the activities of organizations. Even in protected or planned economies the market is the ultimate selection factor of innovation – either at the activity level (related with internal processes) or the competitive arena (external processes).

Most of the organizations have no conscience that innovation is the driver of their activity and that it is always present in all their functions whether they realize it or not. Innovation is in the DNA of all human organizations even if their management is not a formal or direct process. Innovation must, therefore, have a significant impact in their competitive advantage – as it is part of their Intellectual Capital (IC).

When innovation is recognized as a strategic issue, one of the questions in the framework of innovation management is innovation protection. This happens when companies start to play in a global environment and establish networking relationships with customers, suppliers and other relevant parts of the business. That brings in the concept of Intellectual Property Rights (IPR) and the possible ways of that protection. If innovation is an advantage, 'how to prevent others from benefiting from that is the first concern.

Large organizations, mostly large companies, have a clear focus in innovation strategies and more than that in knowledge management as an asset of their business. The smaller their size, in any business area, their business tends to lack a formal attitude and involvement in formal innovation management and related intellectual property. This happens because the smaller the companies are, the higher is their perceived need to concentrate attention on cash-flows. Strategic issues are not usually in the agenda of small business either because of unawareness or priority levels.

SMEs are the majority of business and the largest employer. Most of the SMEs in many countries are not SMEs but more precisely very small enterprises (VSEs) or micro-companies. When such companies are faced with the need to protect innovation they are overwhelmed by the complexity, cost and time required by formal IPR options (patents, design rights, trademarks, copyrights). At the same time they realize the ineffectiveness of the proposed tools as VSEs are not able to make the enforcement of IPR in a global market, most of the time.

In a global economy there is also a global knowledge diffusion process and any formal protection of IP is an informal process of knowledge diffusion. As with the Heisenberg Uncertainty Principle: "it is not possible the simultaneous accurate measurement of observables such as position and momentum of a particle" – it is not possible, in a global economy, to preserve at the same time IPR and use formal methods, without enforcement capacity.

New management strategies are needed for IP and IC protection for SMEs and VSEs, which bring in indirect and informal methods as alternative options. Indirect methods consist of actions such as: confidentiality agreements with employees, establish codes of conduct and exclusivity contracts when appropriate; codification of critical information; division of knowledge related information by unrelated topics and by different persons; implement quality management systems segmenting knowledge areas; introduce interpretative information in the diffusion of materials. Informal methods consist of actions which have no framework, such as thinking, being aware (but doing nothing in a formal way); have a trust-based selection of employees which will deal with sensitive information; carefully manage the communication and marketing activities; monitor and pay attention to the knowledge flows using the information technologies.

The MAC-SSIIM (Multi Actors Cooperation for Sustainable SMEs through Informal Intellectual property Management training) provides a set of IPR informal management tools in the form of training material. These tools have been developed for use by small and very small businesses and focus on indirect and informal methods. Outputs of the project are: 1 CD-ROM with Training Materials (10 modules in PDF) + Slides + pedagogical guides for Training modules and Key Themes; 1 DVD on Companies case studies; 1 DVD on Key Themes based on the Companies case studies.

Intellectual Property in SMEs (and VSEs) must be managed (indirect and informal methods) **rather than just protected** through traditional (formal) methods, and the smaller the companies are, the increasingly important is this alternative approach.



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