

---

## Introduction

---

### Pia Hurmelinna-Laukkanen

University of Oulu,  
Faculty of Economics and Business Administration,  
P.O. Box 4600, FI-90014 Oulu, Finland  
and  
Lappeenranta University of Technology,  
School of Business/TBRC,  
P.O. Box 20, FI-53851 Lappeenranta, Finland  
Fax: +358-8-553-2906      E-mail: pia.hurmelinna@oulu.fi

**Biographical notes:** Pia Hurmelinna-Laukkanen is a Professor of International Marketing at the Faculty of Economics and Business Administration at the University of Oulu, a Senior Researcher in Business Law at the School of Business and a Project Manager at the Technology Business Research Center (TBRC) at Lappeenranta University of Technology (Finland). She has published her work in about 20 refereed articles in journals such as *R&D Management*, *Technovation* and *International Journal of Production Economics*, over 50 conference papers, and in other scientific and managerial publications.

---

## 1 Introduction to the special issue

The logic of creating value through developing and utilising intellectual property has changed during recent years due to phenomena such as globalisation, increased networking and convergence, fast phase of information diffusion, tightened competition, and higher customer demands. Therefore, also the management of intellectual property has taken new forms and widened in range. The business environment provides several opportunities – and equally many options – that have the potential to create value for organisations operating in it. For example, intellectual property (IP) can be created and utilised globally or locally, and in collaboration with other organisations or internally. For instance, a firm can choose to follow the open innovation paradigm (Chesbrough, 2003), engage in innovation networks (Dhanaraj and Parkhe, 2006), or it can choose to develop its IP pool by allocating its resources to internal R&D and innovation activities. Irrespective of the openness of a firm, IP creation can be organised through relying mainly on markets or primarily on hierarchies as the governance form: depending on the structure, decomposability and complexity of problems that a firm deals with in its attempts to create new intellectual property, IP creation can be fostered, for instance, through authority-based hierarchies, consensus-based hierarchies, or by giving room for ‘a set of actors autonomously choosing paths of search that they anticipate will lead to improved and marketable solutions’ (Nickerson and Zenger, 2004), i.e., through fully decentralised decision-making. In similar vein, exploration or exploitation (March, 1991) can be chosen as the focal approach, and the goals of IP creation can be targeted towards

more or less radical or incremental innovations. IP can be protected relying on intellectual property rights (IPRs) or contracts, or on tacit nature of knowledge and lead-time (Hurmelinna-Laukkanen and Puumalainen, 2007). Companies can go for protection and copy prevention provided by trade secrets or patents and creates monopoly power, or they can decide to use the protection mechanisms for controlling knowledge and information flows in and out of the company in the spirit of knowledge sharing.

While the range of the alternative paths that companies can adopt in their IP management activities is wide, finding the most beneficial approach to managing IP can be very challenging. This is especially so because the alternatives often seem very contradictory: choosing one makes using the other difficult or impossible. Challenges may occur because of the opposing nature of the alternatives (e.g., it is not possible to use secrecy to protect some element in an innovation that has been published in a patent application), or because of the limited resources of firms (consider, e.g., small firms that may not have possibilities to spread out their resources to provide opportunities for both exploration and exploitation or for both radical and incremental innovation). It is possible that several alternatives just cannot be pursued simultaneously. Consequently, the various opportunities may end up as dilemmas and paradoxes that the managers need to deal with.

This special issue addresses balancing between different approaches to manage IP – the tug of the war in the field of IP. In line with this, the special issue incorporates studies that evaluate the benefits and downsides of varying alternative strategies, and bring together seemingly contradictory issues in an integrative manner, paying attention to their interplay. The first studies concentrate on the context in which intellectual property is managed. Acknowledging the influence of the operation environment for organisations is important, since it directs the needs and possibilities for efficient IP management and, consequently, IP management strategies of an organisation. Consider, for example, innovation networks that have become increasingly typical: they provide a setting where widely dispersed resources can be combined in a profitable manner, but they are also full of paradoxes. They simultaneously incorporate autonomy and interdependence, hiding core knowledge and sharing it, and stability and dynamism, to mention few examples. For instance, co-competition (i.e., collaboration among competing companies) for IP creation and management requires the managers to handle very different issues than they face in more ‘friendly’ collaboration arrangements. In these settings, the protection of innovations and proprietary knowledge gets a highlighted role. However, also protection of IP holds paradoxes. Thus, the last studies in the special issue focus on protection strategies and mechanisms. Considering all these issues enables not only choosing between alternative forms or strategies of IP management, but also finding ways for managing combinations of contradicting strategies.

## **2 Overview of papers in the special issue**

The prospective authors were encouraged to consider topics such as IP management in open innovation, knowledge sharing and protection for profiting from IP, and IP management in different networks. The questions posed dwelled around issues such as: Why and how companies end up having different approaches to IP management? What kind of outcomes the choices made by company managers lead to? How contradicting elements, approaches and strategies can be merged to create new beneficial

combinations? How companies combine strict control over IP and open innovation? In line with this, contradictions and their management are addressed at several levels.

The first studies deal with issues that affect the approaches towards, and organisation of, IP management from outside the organisation. Indeed, external conditions often explain organisations' behaviour (Covin and Slevin, 1989), and this applies to the ways they manage their IP. The context within which IP is created and managed guides not only the ways in which these activities are organised, but also influences the availability, strength and efficiency (in the competitive sense) of IP management tools. However, the external factors should not be the decisive ones, but the company can have a say in the ways that it utilises those tools. Consequently, the latter studies concentrate on the use of IP protection mechanisms. The common denominator to all studies is the presence of (seeming) contradictories, whether they are more pronounced on the level of the business environment, on the level of a company and its strategies, or on the level of individual IP management mechanisms.

### *2.1 External conditions guiding IP management*

The first paper in this special issue, the study by Pérez-Lunō Robledo, discusses the environmental factors having an effect on company strategies – and on making choices between different strategies related to creation and management of IP. It most notably considers the choice between innovation and imitation, with the nature of knowledge as the influential external factor. Innovation and imitation are seen in the study as endpoints of a continuum, which brings in the element of controversy. The ways in which companies place themselves along this continuum depends, according to the empirical evidence, on knowledge codifiability and simplicity. Whether an organisation decides to go for innovation or imitation has an effect on itself (the firm's IP management activities and operations) as well as on other organisations in the same field (consider, e.g., the need to protect against imitation). Thus, it is important to understand, which features may push or pull organisations into certain directions (see also Strang and Still, 2006).

### *2.2 Requirements for IP management in the networked business environment*

The second and the third paper turn the attention to IP management in collaborative arrangements between organisations. Networks, especially the ones having emphasis on new innovation, are recognised as an important source of new IP for all the members (e.g., Cohen and Levinthal, 1990). Nevertheless, the networks and other different collaborative forms are full of paradoxes. They simultaneously incorporate autonomy and interdependence, hiding core knowledge and sharing it, stability and dynamism, and short-term result requirements and long-term research, for instance.

The paper by Czakon addresses the challenges related to networking. The special form examined is franchising, which is inherently connected to several IP related issues, contracting for trademarks and other intellectual property rights in particular. It is agreed in this study, that it is not enough to have bureaucratic coordination mechanisms, but that social coordination mechanisms are needed as much – even if it seems incompatible to formal governance at times. Most importantly, it is noted that shifts from formal control to socially driven governance have ambiguous effects on IP management. Thus,

purposeful shifts are important considering the effectiveness of franchising operations and knowledge processes.

Even more pronounced contradictions are brought forward in the paper by Ritala. Collaboration and competition have traditionally been seen as opposing alternatives, but the concept of cooptation combines them. In cooptative arrangements, the management of IP becomes very much highlighted. It has to be known, when and how IP can be protected, and when and how the protection mechanisms should be used. Companies can bring existing IP (background IP) into cooptation, and new IP (foreground IP) is created during cooptation both jointly and independently by individual participants. Prevention of imitation and copying and allocation of the IP are then in the core of management.

### *2.3 Protecting intellectual property*

The final studies focus more on a particular area of IP management; protection of IP. This does not mean that the approach would be solely targeted on creation and management of proprietary intangible assets, however. The paper by Landry, Amara and Saihi examines different strategies of innovation protection. Different protection mechanisms – that may not always seem to play well together at the first glance – can be used in different combinations, and the determinants behind choosing protective strategies vary, reflecting the paradoxes present in organisations' operating environments.

Finally, in the last paper, Lee takes under scrutiny one IP protection mechanism in particular: the examination of patents in relation to collaborative innovation illustrates the challenges in bringing together current operations models of firms, and legislation. The contradiction that is especially considered is that of simultaneous over-protection and insufficient protection provided by patents. According to Lee, this contradiction can be handled by putting more emphasis on organisational capabilities and (relational) coordination that firms utilise when they face legal uncertainty.

## **3 Concluding comments**

IP management surely is an area where contradictions reside, and where there is room for both alternative strategies and combinations of them. Indeed, as also Fredberg et al. (2008) note, instead of choosing between conflicting outcomes such as long-term strategy and short-term performance drivers, managers' role is to embrace paradoxes and make different things happen simultaneously.

The studies included in this special issue suggest that instead of a logic of 'either-or', the logic of 'both-and' can – and should – be applied in the present day markets. The complexities, contradictions and paradoxes represent challenges that can be turned into benefits if alternative strategies are acknowledged and known: Aligning the company capabilities to the potential ways of operation in a way that either chooses the best alternative or takes in elements from several of them is only possible if there is deep enough understanding on the underlying features of the emerging contradictions. According to the papers included in this special issue, companies need to take a wider look around than before in order to fully realise the value inherent in their existing and future intellectual property. Nevertheless, there is still more to be done, and the importance of the context (external factors), and the characteristics of firms (internal factors) in formulating the IP management strategies should be paid attention to in future

studies as well. The hope is that the studies in this special issue provide starting points just for that.

## References

- Chesbrough, H. (2003) 'The logic of open innovation: managing intellectual property', *California Management Review*, Vol. 45, No. 3, pp.33–58.
- Cohen, W.M. and Levinthal, D.A. (1990) 'Absorptive capacity: a new perspective on learning and innovation', *Administrative Science Quarterly*, Vol. 35, No. 1, pp.128–152.
- Covin, J.G. and Slevin, D.P. (1989) 'Strategic management of small firms in hostile and benign environments', *Strategic Management Journal*, Vol. 10, No. 1, pp.75–87.
- Dhanaraj, C. and Parkhe, A. (2006) 'Orchestrating innovation networks', *Academy of Management Review*, Vol. 31, No. 3, pp.659–669.
- Fredberg, T., Beer, T., Eisenstat, R., Foote, N. and Norrgren, F. (2008) 'Embracing commitment and performance: CEOs and practices used to manage paradox', Working paper 08-052, Harvard Business School, available at <http://www.hbs.edu/research/pdf/08-052.pdf>.
- Hurmelinna-Laukkanen, P. and Puumalainen, K. (2007) 'The nature and dynamics of appropriability – strategies for appropriating returns on innovation', *R&D Management*, Vol. 37, No. 2, pp.95–112.
- March, J.G. (1991) 'Exploration and exploitation in organizational learning', *Organization Science*, Vol. 2, No. 1, pp.71–87.
- Nickerson, J.A. and Zenger, T.R. (2004) 'A knowledge-based theory of the firm – the problem solving perspective', *Organization Science*, Vol. 15, No. 6, pp.617–632.
- Strang, D. and Still, M.C. (2006) 'Does ambiguity promote imitation, or hinder it? An empirical study of benchmarking teams', *European Management Review*, Vol. 3, pp.101–112.