



Rigorous empirical
research on
intellectual property

4 SMEs ✓

Patenting motives, technology strategies, and open innovation



HOLGERSSON, Marcus / GRANSTRAND, Ove: Patenting Motives, Technology Strategies, And Open Innovation, *Management Decision* (2017), Volume 55 Issue 6, pp. 1182-1208

Dr. Spyros Makris,

LL.M., Guest Researcher at Max Planck Institute for Innovation and Competition

SUMMARY			
Document Title	HOLGERSSON, Marcus / GRANSTRAND, Ove: Patenting Motives, Technology Strategies, And Open Innovation, Management Decision (2017), Volume 55 Issue 6, pp. 1182-1208		
Author	Dr. Spyros Makris	Date	20.02.2018

Abstract

In the present paper, the authors empirically examine the manifold motives for both large companies and small and medium-sized enterprises (SMEs) to patent their technologies. The authors further examine how companies' motives to engage in patenting are linked to their level of open innovation. Although some minor differences between large companies and SMEs can be observed, the authors argue that protecting the own technology (including creation of retaliatory power, blocking of competitors and securing freedom to operate) is the most dominating motive for companies to engage in patenting. Furthermore, the authors argue that almost all patenting motives examined are stronger in the context of open innovation, than in connection with closed innovation strategies.

Summary

Over the last decades, companies have increasingly engaged in patenting activities, which has led to a surge in patenting. At the same time, companies also increasingly engage in open innovation.

The authors empirically examined the manifold motives leading companies to patent their inventions. Furthermore, the authors investigated how these motives link to the companies' level of open innovation.

The study was based on data collected from both Swedish national and bi-national large firms as well as Swedish small and medium-sized enterprises (SMEs) having the largest investments in research and development (R&D) across several industries (including chemistry, biotechnology, pharmaceuticals, electronics, IT, power and mechanical).

The patenting motives examined were divided into five groups:

1. **Protection motives:** Protection motives include (a) protection of product and process technologies, (b) creation of retaliatory power, (c) blocking of competitors from certain technology areas (with the goal to ensure own flexibility as well as the ability to hinder competitors' technological advancements), and (d) securing freedom to operate (FTO), that is the ability to produce and market products, without infringing other companies' intellectual property rights.
2. **Bargaining motives:** Bargaining motives include (a) increasing licensing and cross-licensing possibilities, (b) facilitating R&D collaborations, and (c) improving the bargaining position within standards development.

3. **Image motives:** Improving corporate image towards employees/new recruits, customers, suppliers, investors, other collaborators and local governments.
4. **Financial motives:** Attracting external financing, such as bank or governmental loans or guarantees and private equity or governmental venture capital.
5. **Internal motives:** Internal motives include motivation of employees and measuring of R&D productivity.

The authors found that, in general, protection motives (except process protection) dominate over other groups of motives with regard to both large companies and SMEs. Within the protection motives, protecting product technologies prevails, followed by securing FTO, blocking competitors from certain technology areas and creating retaliatory power through patenting.

After protection motives come image motives. Insofar, differences between company sizes can be observed. For instance, improving image towards investors appears to be of higher importance to SMEs than to large companies.

Image related motives are followed by internal motives. Next come bargaining motives. The least important group of motives are financing motives. Again, SMEs appear to value bargaining and financing motives more than large companies.

Linking the above groups of motives to the companies' level of open innovation revealed positive relationships between open innovation and all patenting motives. Moreover, the results indicated that almost all motives (except attracting customers) are far stronger in relation to open innovation models than with respect to closed innovation strategies.

In particular, protection motives and bargaining motives are both positively related with open innovation strategies, whereas the relationship between protection motives and open innovation appears stronger than the one between bargaining motives and open innovation (although the importance of bargaining motives increases with increasing importance of open innovation strategies).

Furthermore, results indicated a significantly stronger relationship between open innovation and financing motives than between these motives and closed innovation (that is to say that companies engaging in open innovation strategies regard financing motives more important than companies using closed innovation strategies). In addition, the results also revealed that using patents as measures of R&D productivity is more important for companies in open innovation settings than in closed ones.