

Overcoming Open Innovation Challenges with Technology Intelligence: Case of Medium-Sized Enterprises

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Abstract : The prior research largely discussed open innovation practices both in large and small and medium-sized enterprises (SMEs). Open Innovation compels firms to observe and analyze the external environment in order to tap new opportunities for inbound and/or outbound flows of knowledge, ideas, work in progress innovations. As SMEs are different from their larger counterparts, they face several limitations in utilizing open innovation activities, such as resource scarcity, unstructured innovation processes and underdeveloped innovation capabilities. Technology intelligence - the process of systematic acquisition, assessment and communication of information about technological trends, opportunities and threats can mitigate this limitation by enabling SMEs to identify technological and market opportunities in timely manner and undertake sound decisions, as well as to realize a 'first mover advantage'. Several studies highlighted firm-level barriers to successful implementation of open innovation practices in SMEs, namely challenges in partner selection, intellectual property rights and trust, absorptive capacity. This paper aims to investigate the question how technology intelligence can be useful for SMEs to overcome the barriers to effective open innovation. For this, we conduct a case study in four Estonian life-sciences SMEs. Our findings revealed that technology intelligence can support SMEs not only in inbound open innovation (taking into account inclination of most firms toward technology exploration aspects of open innovation) but also outbound open innovation. Furthermore, the results of this study state that, although SMEs conduct technology intelligence in unsystematic and uncoordinated manner, it helped them to increase their innovative performance.

Keywords : technology intelligence, open innovation, SMEs, life sciences

Conference Title : ICIMT 2018 : International Conference on Innovation, Management and Technology

Conference Location : Dublin, Ireland

Conference Dates : August 16-17, 2018