



THE OPEN INNOVATION CONCEPT – An Executive Summary

York University BAS – Management Policy-2, 4910

Submitted to: Professor K. Thomson

March 11, 2015

By: Jeff Kent

Table of Contents

- 1.0 Executive Summary 1
 - 1.1 Types of Open Innovation..... 2
 - 1.2 Challenges of Open Innovation 3
- 2.0 Practitioner Strategies 5
- 3.0 References 6

1.0 Executive Summary

Businesses are required to bring new products and services to market faster than ever before. This has been brought about most notably by the emergence of what is now a truly globalized economy and changing consumer tastes. There are several challenges associated with speeding up the innovation process, including the costs associated with research and development and an organizations resource capabilities (Dahlander & Gann, 2010). Recently, more and more organizations are participating in open innovation to optimize the innovation process. Although internal R&D efforts are critical to an organization's survival in many industries, a firm's engagement with external sources of innovation can often hold benefits not realized during the development of internal knowledge (Lichtenthaler, 2008). Murray and O'Mahony (2007) assert that for innovation to occur and to be successful, knowledge must not only be shared, but it must be reused, recombined, and accumulated. Recent evidence from their research shows innovation is cumulative to the extent that it incorporates prior knowledge from multiple sources (Murray & O'Mahony, 2007). According to Alexy and Salter (2013), external knowledge can be purposefully or unknowingly transformed to produce something more valuable than originally realized, hence, an efficient balance of both internal and external innovation processes can have lasting benefits for all types of organizations and industries (Dahlander & Gann, 2010).

The benefits of utilizing internal R&D include achieving economies of scale and establishing credibility in the market, but on the other hand, firms also need access to external knowledge in order to strengthen, assimilate, and co-develop ideas (Dahlander & Gann, 2010). Open innovation adds to the process by also increasing efficiency, profit generation, supporting cost reduction strategies, and decreasing the amount of time that it takes to bring products and services to the market (Dahlander & Gann, 2010; & O'Mahony, 2007). According to Nieto and Rodriguez (2011), the exchange of knowledge in the foreign market, which has occurred as a result of globalization and cost pressures, can present an even greater opportunity for firms. Open innovation ultimately increases the effectiveness of an industry and supports the development of

complimentary products and services. Not participating in open innovation can result in missed opportunities and poor overall firm performance (Lichtenthaler, 2009).

1.1 Types of Open Innovation

With a great deal of organizations shifting towards open innovation, contributors are likely to come from different types of firms that will bring different cultural variables (Murray & O'Mahony, 2007). Innovators disclose their ideas through a variety of mechanisms that are facilitated at multiple levels of analysis and fundamentally, in order for a firm to benefit from open innovation, it must first be conceptualized accurately (Dahlander & Gann, 2010; Murray & O'Mahony, 2007). There are two inbound processes; sourcing and acquiring, and two outbound processes; revealing and selling. Each dimension brings its own unique risks and benefits; thus, exploring each form of open innovation is crucial for determining viability to the organization.

Sourcing occurs when firms scan the external environment in an effort to locate innovations that would inform their internal R&D efforts (Dahlander & Gann, 2010). This form of openness is advantageous because it mitigates costs from the beginning, relies on many sources of external knowledge, and only uses those sources that provide synergies with the internal ideas (Dahlander & Gann, 2010). The downside is that firms can become too involved in wasteful search efforts over the concern with external knowledge. This can hinder the formation of newer and better innovations within an organization's R&D department (Lichtenthaler, 2008).

Acquiring is a form that includes a monetary exchange and refers to knowledge acquired through the marketplace. Since expertise is required in order to search for innovations, acquiring firms begin the process with a great deal of competence in a particular subject matter. This competence however, can also become difficult to align with external knowledge and if this knowledge is too similar, these firms may have difficulty coming up with novel combinations (Dahlander & Gann, 2010).

Revealing occurs when a firm shares internal knowledge that does not immediately result in a financial reward, instead, only indirect rewards that may benefit the organization and/or the industry sometime in the future. This form of openness can

result in firms hoarding and over protecting knowledge with hopes of releasing it to an 'ideal' firm later. According to Alexy & Salter (2013), selective revealing is particularly important to firms and within markets that face a high level of uncertainty. Although this can be used as a strategic mechanism to improve technological and market conditions, it can also work against progress by slowing down the process of bringing new innovations to market (Alexy & Salter, 2013; Dahlander & Gann, 2010). Additionally, smaller organizations may feel disadvantaged by larger firms that can easily exploit shared knowledge, this may discourage these smaller firms from sharing their knowledge externally (Dahlander & Gann, 2010).

Selling involves a monetary exchange and refers to how firms commercialize their innovation efforts through selling or licensing. This form of openness is advantageous since many of these efforts would ultimately be ignored by the market and are not relevant to a firm's core competencies. If however, organizations are not willing to share this knowledge, market failure can occur (Dahlander & Gann, 2010).

1.2 Challenges of Open Innovation

Inclusive to all forms of openness, West & Gallagher (2006) consider both internal and external challenges faced by organizations in their efforts to contribute to open innovation. Internally, firms must consider how they will attract the brightest employees to build up an advantage within an industry (human capital management). Additionally, they must consider how research can be used to develop competencies that are marketable and valuable to the firm. Externally, they must decipher what sources to explore and how external innovations can be integrated to improve internal innovations (West & Gallagher, 2006). Other challenges worth noting include the effect of turbulent technology, transaction rate and the competitive intensity within an industry, each having a positive effect on outbound innovation and a firm's return on sales (Lichtenthaler, 2009). Meanwhile, in an effort to contribute and benefit from open innovation, firms are faced with the challenge of motivating external sources to generate and provide knowledge, integrate this knowledge into the firms existing resources and capabilities, and finding new ways to exploit their internal innovation. There are particular concerns

about the challenges that small to medium sized enterprises (SMEs) face with any form of open innovation since a great deal of successes have been documented by multi-national enterprises (MNEs) (Van et al, 2009). This difference can be explained by variables associated with resource capability and network access, which in both cases are more positively associated with MNE's. An MNE is more likely to possess the financial resources required to produce innovations, engage in foreign knowledge sourcing, and explore strategic international joint ventures (IJVs). Research in all of these knowledge sharing methods has shown a direct correlation between increased efficiency and innovation processes (Zhou & Li 2008).

Some techniques that can be employed to mitigate challenges include, improving external environmental scanning activities and refining external networks to develop strong alliances that make sense for the organization. Also, meeting intrinsic needs by providing rewards and recognition, which can encourage external firms to generate knowledge and contribute to open sources (West & Gallagher, 2006). Individual attitudes act as one of the final levels and can either enhance or destroy open innovation processes within an organization. Supporting and cooperating with the processes can strengthen results, while resistance can mitigate the outcome (Nieto and Rodriguez, 2011). Lichtenthaler (2011), suggests that by establishing specific management mechanisms and by providing appropriate tools, processes and structures, a firm can greatly enhance their ability to manage different open innovation processes. Specifically, management initiatives should foster knowledge exploration, retention, and exploitation (Lichtenthaler, 2011). Additionally, often the greatest gain can come from taking an initial loss. More specifically, knowledge sharing can be beneficial when it seeks to maximize revenues from an organization's total portfolio or by making advancements within an industry (West & Gallagher, 2006).

Overall, the objective of adopting an open innovation approach is for those firms involved, to come out ahead as a result of the combined synergies from the internal and external sources of the innovation.

2.0 Practitioner Strategies

The literature shows open innovation is now becoming more common globally, whether you're a MNE or SME. Organizational and cultural barriers need to be addressed before engaging in open innovation processes and businesses need to be aware that various forms carry their own problems and barriers otherwise, success will be limited.

Companies need to look first to their internal sources for core competencies and then look externally for possible sources of valuable compliments.

SMEs use several open innovation forms concurrently to serve customers effectively and open up new markets, which brings higher revenue and growth, however, it depends on the technology and industry. Some common trends are: 50% outsource R&D, customer involvement, external networking, and employee involvement. If a company focuses too much on internal innovation while discrediting some technology commercialization, opportunities will be missed such as outbound open innovation. This has a direct positive effect on organizational performance; however, there's no point in selling IP if the acquirer doesn't have resources for taking your innovation to market or improving it. Sharing innovation attracts improvements and complements that will make your technology more attractive and valuable to others.

R&D offshoring is attractive because exploiting foreign knowledge resources positively affects innovation results and captive offshoring produces positive business results. Committed partners and combining knowledge is essential, while a balanced ownership structure can facilitate IJV learning, thus, improving performance. Firms using IJVs should prepare for generational shifts of operations and act like strategic insiders in emerging markets by engaging in capacity-building activities and responding to the evolving environment.

Early innovators can manage reuse and recombination of their ideas through access controls, giving them rewards when they disclose the information to others. Selective knowledge revealing (SKR) can be used as a way to subtly influence a partner into behaviour imitation, also pulling others onto your path and propelling your firm to network lead, which brings spinoff benefits. Used collaboratively, SKR and its subsequent transformation makes the knowledge more valuable to the owner.

If businesses facilitate and implement new management mechanisms, tool designs, processes, and structures, having these better capabilities allows managing different open innovation processes to be much improved. When an organization aligns internal and external processes and doesn't focus on just one, this allows for synergies to be developed.

3.0 References

- Alexy, O., George, & Salter, A. I. (2013). Cui Bono? The Selective Revealing of Knowledge and Its Implications for Innovative Activity. *Academy of Management Review*, 38(2), 270-91.
- Dahlander, L., & Gann, D.M. (2010). How Open is Innovation? *Research Policy*, 39(6), 699.
- Lichtenthaler, U. (2008). Externally Commercializing Technology Assets: An Examination of Different Process Stages. *Journal of Business Venturing*, 23(4), 445.
- Lichtenthaler, U. (2009). Outbound Open Innovation and Its Effect on Firm Performance: Examining Environmental Influences. *R&D Management*, 39(4), 317.
- Lichtenthaler, U. (2011). Open Innovation: Past Research, Current Debates, and Future Directions. *The Academy of Management Perspectives*, 25(1), 75.
- Murray, F., & O'Mahony, S. (2007). Exploring the Foundations of Cumulative Innovation: Implications for Organization Science. *Organization Science*, 18(6): 1006-1021.
- Nieto, M. J., & Rodríguez, A. (2011). Offshoring of R&D: Looking Abroad to Improve Innovation Performance. *Journal of International Business Studies*, 42(3), 345-61.
- Van, d. V., de Jong, J., P.J., Vanhaverbeke, W., & de Rochemont, M. (2009). Open Innovation in SMEs: Trends, Motives and Management Challenges. *Elsevier, Technovation*, 29(6), 423.
- West, J., & Gallagher, S. (2006). Challenges of Open Innovation: The Paradox of Firm Investment in Open-Source Software. *R&D Management*, 36(3), 319-331.
- Zhou, C., & Li, J. (2008). Product Innovation in Emerging Market-Based International Joint Ventures: An Organizational Ecology Perspective. *Journal of International Business Studies*, 39(7), 1114-1132.