How much does business strategy influence innovation performance?

What is the right balance of open versus closed innovation that will result in the strongest company performance? This article examines three proactive strategic archetypes to find out how they can influence a company’s management of innovation and, ultimately, to what extent both business strategy and innovation management impact company success.
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The close relationship between strategy and innovation is well known, but the influence of strategy on the adoption of different collaborative innovation formats has not yet been sufficiently explored. An investigation of this link is essential as it might significantly influence an organization’s innovativeness and its financial performance.

Collaborative or open innovation leads to a diversity of knowledge that positively fosters innovation. When aligned with a company’s strategy and willingness to open up, such efforts enable companies to achieve a sustainable advantage over competitors. Yet, the question remains unanswered as to what balance of open versus closed innovation formats results in the strongest innovation performance. Business strategy might well play a part in answering this question.

In order to capture the various forms of business strategy, taking into account both market orientation and internal structures and processes, we have extended the strategy typology originally identified by Miles and Snow to provide the framework on which this article is based. The authors’ concept counts as one of the most widely studied, validated and persistent strategy frameworks since its introduction. It maps the competitive landscape by using three distinct, proactive strategic archetypes, namely the opportunity-driven “Prospectors,” the market segment-securing “Defenders” and the dual-oriented “Analyzers,” which act as hybrids between the two. The “Reactor,” a fourth archetype, lacks a consistent strategy-structure relationship and is regarded as a failure in business. This strategic archetype is not considered here, as innovation does not play a lead with it and, as such, this non-proactive strategic archetype cannot help companies toward success.

Based on this strategy typology, embellished and extended with attributes of market and innovation orientation, environmental adaptability and innovation types, we were able to deduce distinct

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How does business strategy influence innovation?

Types of innovation strategy and collaborative innovation format affecting company performance. Businesses vary with respect to opportunity search and when it comes to scope and intensity, they open up to the external environment very differently. Some extensively utilize collaborative innovation formats for skimming a variety of ideas and experiences from external actors, such as customers, lead users, suppliers, universities and other organizations in their own or different industries — whereas others strongly focus on in-house development and collaborate only occasionally.

In order to identify successful organizations with dissimilar business strategies for the purposes of a case study, data from the university chair’s own non-compulsory innovation surveys from the years 2010 and 2011 (N=241) was analyzed. With respect to the market position, turnover and reputation in the market, we chose 14 prosperous businesses with different business strategies fitting the extended Miles and Snow strategy typology for a multiple case study approach. To scrutinize polar types, both large corporations and small and medium-sized enterprises, within a variety of industries, were included. In order to enhance validity and assess and combine results, data collection was based on semi-structured interviews together with archival data and information from internal company documents. The case study approach proved the existence of three successful, proactive strategic archetypes that produce different innovation practices.5

**Prospectors** strive for differentiation and technology leadership, opening themselves, both widely and deeply, to the environment. Scouting activities and early trend identification are essential for Prospectors who commonly collaborate with a variety of external actors. In fact, the integration of externals is a core part of their innovation processes and is often anchored into their strategy formulation. As Prospectors appear to be experienced with different collaborative innovation formats, they usually possess a sophisticated success-measurement system for these. Based on the Prospectors’ high openness to risk and their behavior toward opportunity search, they typically generate a considerable amount of their turnover from radical innovations.

**Defenders** are at the other strategic extreme. They strive for market segment leadership with a strong focus on preserving their current market share. As a result, Defenders struggle for cost leadership and try intensively to reduce time-to-market. A high degree of openness is not necessary for Defenders. Instead, they place a large emphasis on in-house development and in-house production depth. They work hard to integrate customers or suppliers for efficiency reasons. In fact, close and intense relationships with customers and suppliers play a major role for Defenders – other external sources are rarely used. Based on

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Research and development managers should always consider a company’s vision and business strategy (i.e., Defender, Prospector, Analyzer) when conducting changes in its management of innovation.

this behavior and their driving ambition for efficiency, Defenders generate most of their turnover from incremental innovations. **Analyzers** are positioned between the Defenders and Prospectors. Depending on the category of product, they make a conscious decision about the type of strategy they will adopt. In some categories, they act as cost leaders and strive for market segment leadership, whereas, in others, their main focus is differentiating their innovativeness. As a result, in some markets, they act as true Prospectors, whereas in other markets, they employ a Defender strategy. Duality frequently poses a profitability problem for this strategic archetype. However, as we only selected successful Analyzers for our case studies, they coped effectively with this issue. Analyzers seem to particularly favor collaboration with other companies and habitually collaborate in corporate networks. With respect to their sophisticated partnering concepts, they frequently apply different indicators for measuring the success of these partnerships.

Figure 1. Balancing open and closed innovation according to business strategy

<table>
<thead>
<tr>
<th>Transfer to  innovation strategy</th>
<th>Opportunity-driven “Prospector”</th>
<th>Dual-oriented “Analyzer”</th>
<th>Market segment-securing “Defender”</th>
</tr>
</thead>
<tbody>
<tr>
<td>► Broad product market field</td>
<td>► Broad application of open innovation aiming at new innovation opportunities</td>
<td>► Narrow product market field</td>
<td>► Focus on in-house development with little open innovation</td>
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<tr>
<td>► Continuous and broad quest for new opportunities beyond their own sector</td>
<td>► Highly sophisticated scouting activities in various industries</td>
<td>► Little quest for new opportunities beyond their own sector</td>
<td>► Very focused when deciding on specific open innovation formats</td>
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<td>► Trigger for change in dynamic environment</td>
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<td>► Technology leader</td>
<td>► Increase in efficiency, market orientation</td>
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<td>► Technology leader</td>
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<td>► Differentiation strategy</td>
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<td>► Differentiation strategy</td>
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<td>► Radical and breakthrough innovations</td>
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<tr>
<th>Degree of open and closed innovation</th>
<th>Opportunity-driven “Prospector”</th>
<th>Dual-oriented “Analyzer”</th>
<th>Market segment-securing “Defender”</th>
</tr>
</thead>
<tbody>
<tr>
<td>► Broad application of open innovation aiming at new innovation opportunities</td>
<td>► Customer and supplier integration to increase innovativeness</td>
<td>► Cherry picking when choosing open innovation activity</td>
<td>► Customer and supplier integration to increase efficiency</td>
</tr>
<tr>
<td>► Highly sophisticated scouting activities in various industries</td>
<td>► Join development with customers and suppliers to increase innovativeness</td>
<td></td>
<td>► Joint development with customers and suppliers due to focus on close relationship</td>
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<td></td>
<td>► Creativity workshops with externals</td>
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<td>► Strong in-house development and high in-house production depth</td>
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<td>► Technology alliances</td>
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<td>► Crowdsourcing</td>
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<td>► Cooperation with universities and research institutions</td>
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<td>► Lead-user integration</td>
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<td>► Cross-industry innovation</td>
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<td>► Netnography and web content mining</td>
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<td>► Innovation and knowledge networks</td>
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<td>► Cooperative business models with externals</td>
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EADS: a story of transition from Defender to Analyzer and market leader

EADS (the European Aeronautic Defence and Space Company) is Europe’s largest aerospace company and achieved a turnover of €45.8m in 2010 with 122,000 employees. The company’s products prove that EADS is a driving innovator in its markets, e.g., Airbus A380, A350, A320Neo; Eurocopter X3 and X4; Astrium ATV, Terra-SAR-X and TanDEM-X; Cassidian Talarion and its market-leading security systems and infrastructure facilities.

EADS operates in stable industries, such as aerospace, as well as defense and security systems, which have a relatively low industry velocity. Due to the exceptional structure and format of the aerospace industry, cost leadership needs to be considered but is not the company’s key objective. Over the last few decades, a paradigm shift in aeronautics and defense has taken place. Mere cost leadership and focus on core technologies would not have allowed EADS to stay successful. Due to increasing competition and reduced, or at best stable, budgets in
governmental markets, the company opened up to increase potential solutions and develop new business. Thus EADS, initially following a Defender strategy, moved to become an Analyzer. This can be clearly seen by looking at certain characteristics with respect to the company's orientation, innovation culture and innovation activities.

Top management regards its employees as the backbone of the company's success and competitiveness. The focus is on in-house development in close cooperation with a certified supply base. Research and technology (R&T) management is clustered group-wide into 20 technology domains striving for excellence through internal activities and R&T partnerships all around the world.

Due to the company's concentration and its assurance of confidentiality to certain customers, EADS cannot open up to the external environment as widely and deeply as Prospectors tend to do. Nevertheless, by a strategic approach, the company is active in open innovation for outside-in as well as for inside-out activities. Dedicated processes include ongoing scouting, ensuring that technical excellence created outside the group is brought in-house and used by EADS.

EADS carries out preferred innovation activities that support the company's corporate strategy. The EADS headquarters, as well as EADS divisions, maintain dedicated innovation funnels to scout promising new ideas in EADS' core and adjacent business environments.

For example, the division Cassidian Systems regularly conducts internal ideas competitions in which employees of all EADS divisions participate. For instance, the 2010 ideas competition "Customer First" dealt with the issue of how to cooperate with the EADS customers in a more efficient way and how to create new services to better serve their demands. Addressing this topic in a company-wide ideas competition seemed relevant, as EADS emphasizes its close collaboration with customers and also direct suppliers for efficiency reasons.

EADS is a strong believer that supplier cooperation reduces time-to-market and costs. Thus, EADS will work closely with suppliers as part of the innovation process. For example, currently, its Airbus division is collaborating with Deutsche Telekom's T-Systems business in an aeronautics project to optimize flight characteristics and improve passenger convenience. As airplanes increasingly become information carriers rather than just transportation vehicles, the collaboration potential between aerospace and information and communication technology suppliers seems huge.

“In 2007, the EADS headquarters established a process to allow for greenfield initiatives for the development of new business. In such in-house venture capital initiatives, a systematic process assists the employees with the development of novel business models and to stronger capitalize the company's internal knowledge base,” says Otto Gies, EADS Vice President, R&T Strategy and New Business.

As a result of the process’s success, various business units still apply this concept and its tools today. EADS provides a manual to fully understand the concept and its application and occasionally offers cross-divisional business model development workshops that are based on this concept. This systematic business model development process will help with the defense of actual market segments and access to related markets, thereby achieving and securing market segment leadership across numerous markets. It will also allow new businesses to enter these markets, based on disruptive innovation concepts, and implementation of the most promising innovation ideas down-selected from the EADS' innovation funnel.

As a result of the company's orientation and its activity portfolio, currently, EADS still generates most of its turnover from innovations in its core business. However, in the long run, the company aims to enhance its turnover with increasingly radical innovations as well as new businesses. This transition will come from the development of novel, radical business models and cooperative business models with external partners, and from the established innovation funnels of all divisions and headquarters.
How Henkel, as Prospector, innovates via a cross-industry innovation strategy

Henkel AG & Co. KGaA is a multinational company operating in the consumer products sector. The highly dynamic and fast-moving nature of this industry has led Henkel to radically open up to the external environment. In particular, the company is famous for its numerous cross-industry innovation collaborations. Henkel's reputation labels the firm as a supplier of brands and technologies across three business areas. These are laundry and home care, cosmetics and toiletries, and adhesives technologies, with market-leading brands such as Persil, Purex, Schwarzkopf, Pattex and Loctite. Henkel fulfills many of the characteristics of a successful Prospector and achieved a turnover of €15.1m in 2010 with 48,000 employees.

Henkel opens up to the external environment both widely and deeply in order to integrate the ideas and knowledge of several external actors, such as customers, lead users, suppliers, universities or other organizations.
with distinct backgrounds. In contrast to other companies in the same sector, Henkel places particular emphasis on its cross-industry innovation approach and actively searches for new opportunities outside of its own sector. The company continuously scans technologies developed in other industries and regularly visits leading trade fairs, such as Anuga (food and beverage), Interpack (packaging) or Powtech (mechanical processing technologies). By doing so, Henkel puts itself in a very strong position and is able, at an early stage, to identify trends within other industries that might become relevant at a later stage within its own sector. For example, the move toward convenient, pre-dosed liquid laundry detergent adopted by Persil MegaCaps and Purex UltraPacks underline this positioning. As a result of these scouting activities, Henkel often establishes bespoke collaboration formats with its cross-industry partners for new product and process innovations.

When cooperating with other companies or institutions, one of the big factors taken into consideration is the difference in approach to problem solving between Henkel and its cooperation partner. This is because Henkel favors a certain distance between its own methods, knowledge and competencies, and those it is working with, in order to come up with radical and breakthrough product and process innovations. As this difference in approaches between the partners frequently enhances risk, Henkel can be characterized by a relatively high openness to risk in the context of its cross-industry innovation strategy. Examples of radical product innovations that resulted from cross-industry innovation cooperation in Henkel’s laundry and home care business are the unique extruded detergent, Persil Megaperls, the superior rimblock WC Frisch Kraft-Aktiv and Terra cleaners — which offer an ideal combination of excellent performance and outstanding environmental compatibility. Furthermore, the automatic dishwashing tablets, Somat 10, provide faster, more powerful cleaning at low temperatures due to an innovative, readily dissolvable formula.

Since Henkel continuously revolutionizes the market with novel technologies and product innovations, the company fulfills one of the most important characteristics of a Prospector, namely, starting new trends. One example of this is the Purex Complete 3-in-1 Laundry Sheets, which contain all of the detergent, softener and anti-static needed for one wash cycle and the following dryer cycle. As Prof. Dr. Müller-Kirschbaum, Corporate Senior Vice President, Henkel Laundry and Home Care, commented, “Henkel frequently achieves technology leadership in its markets and generates a considerable turnover from its radical innovations.”

Henkel also measures the success of its cross-industry innovation activities in a systematic way, using defined KPIs and ratios such as a fall in time-to-market, reduction of costs and the net present value compared to internal projects. Furthermore, the company strongly encourages its employees to integrate cross-industry partners both during the ideas and concept phase and the later product development phase. In order to diminish the “not-invented-here-syndrome,” Henkel has established the innovation award, “borrow with pride,” which rewards employees for the identification of existing solutions from external sources and industries.
Conclusion

It is clear that all three proactive strategic archetypes can have a positive influence on a company’s innovation performance and success so long as innovation practices are closely derived from business strategy. For example, there is no use in opening up to the external environment both widely and deeply if a company follows a Defender strategy. Instead, the company should apply purposive innovation practices to augment resource efficiency, accelerate time-to-market and create a product or service in close collaboration with actual customers and direct suppliers.

In contrast, if a company acts as a Prospector or Analyzer and continuously searches for new opportunities and a way to revolutionize markets, it maintains a high degree of openness and usually applies more unconventional collaborative innovation formats.6

Consequently, research and development (R&D) managers should always consider a company’s vision and business strategy (i.e., Defender, Prospector, Analyzer) when conducting (radical) changes in its management of innovation. In this way, we are able to approach the important question as to what balance of open and closed innovation formats are needed in order to be successful.

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Your participation in the innovation study 2012 is free of charge and enables your company to improve its innovation performance through a focused benchmarking that you will receive at the end. Moreover, it allows you the possibility of contact with leading R&D experts and enables you to become familiar with what is state of the art in open innovation.

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