

# How to distinguish innovative suppliers? Identifying innovative suppliers as new task for purchasing

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## Abstract

For companies operating under unfavorable macroeconomic conditions, such as high wage/high tax countries in central Europe, innovation has become a central theme for survival. If there is one thing that has changed in innovation management during the last decade, it is the growing reliance on external sources of technology. As a consequence, a new task for purchasing arises, as firms need to understand which suppliers actually do have high potential contributing to the innovativeness of the firm and which do not. This paper focuses on the conceptual basis and derives propositions on the nature of innovative suppliers: specialized, technically competent firms, located in the proximity of the buyer, being embedded in a trusted and intensive relationship are identified as having a higher probability to be the core innovative suppliers. These criteria can serve to refine strategic sourcing decisions and improve communication between engineering and purchasing professionals.

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## 1. Innovation and purchasing: selecting innovative suppliers

In their introduction to a special journal edition on new product development (NPD) Wind and Mahajan state with some underlying resignation: “Unfortunately, despite marketing, operations, research and development (R&D), and business strategy disciplines’ increased attention to NPD [...] the new product success rate has improved minimally.” (Wind & Mahajan, 1997, p. 1) Interestingly, purchasing is not mentioned. Could it pave the way out of the dilemma of too slow an increase in innovative output? Purchasing may be a neglected function as far as contributing to a firm’s innovativeness and new product development is concerned. One reason for this was that during the 1990s a fundamental change seems to have occurred in the way innovations are generated. While at the beginning of the decade only one fifth of the most technology-intensive companies were heavily relying on external sources of technology, their share had

increased to 85% in the new millennium (Roberts, 2001). A firm’s ability to exploit external knowledge can be considered as a critical component of innovative performance. Innovation is increasingly not happening in the isolated laboratory of a firm anymore, but involves the supply chain including the firm’s suppliers. In the UK innovation survey covering more than 8000 firms, for instance, suppliers have been identified as the prime external resource for co-operation, slightly ahead of customers (Stones, 2001). It comes as no surprise that a recently conducted major benchmarking study identified a particular commitment to innovation by purchasing as a key feature distinguishing successful firms from those underperforming their industry rivals (Goffre, Plaizier, & Schade, 2005). Still, there is a “dearth of research” into innovation generation in buyer–seller relationships (Roy, Sivakumar, & Wilkinson, 2003), let alone for example into purchasing’s role in fostering such innovative collaborations (Chen, Paulraj, & Lado, 2004).

To help fill the gap, this paper is going to briefly establish the theoretical link between purchasing and innovation and then focus on one of the core activities of purchasing: supplier selection, more precisely on the selection of suppliers with a high potential for contributing to the buyer’s innovativeness. To understand the characteristics of such suppliers, a brief review of

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the literature will be followed by the derivation of characteristics typical to innovative suppliers. On this basis, a shortlist amending the traditional cost focussed supplier evaluation could be developed. The typical problem situation addressed by this approach could be like the one of a producer of IT-peripherals who decided to entrust a supplier with developing and providing a new component that was not completely specified, but would still have to be jointly particularized. About half a dozen vendors quoted. The ensuing issue was how to identify the supplier who is more likely to fully understand the challenge, pose limited problems in collaboration and finally, who is the most likely to contribute with an innovative solution? Another application could be found with a firm intending to increase its innovativeness and needing to filter out suppliers to be actively involved in such a campaign. So far literature does not provide a comprehensive tool or a set of criteria that can be used in managerial decisions to distill out such innovative suppliers. The purpose of this paper is to provide propositions on such criteria. They could also serve as a basis for empirical verification and amend the current stage of research in collaborative new product development by stressing a sourcing related access more.

## 2. Theoretical background: Innovations in systems

One of the central points of criticism of empirical work on innovation is the lack of a clear definition of what is meant by innovation, which makes it difficult to compare results or to generalize them (Hauschildt, 2004). Looking at the basic meaning of the word, ‘innovation’ originates from the Latin “novare” which means renewing and indicates the introduction of something that did not exist before. In the business context, an important specification of the general term ‘innovation’ is directed at the object of innovation: for whom is the innovation new, new for the world or just new for a firm? Bearing in mind the central question of this paper, i.e. how those suppliers can be identified who offer the maximum contribution to the innovativeness of a buyer, it seems appropriate to follow a wider notion of innovation, not necessarily as a world innovation, but as being something new to the firm, regardless of being new to the competitors or not (Hauschildt, 2004). The result of a new product development processes, but also introducing new features for a product or simply replacing one of the materials it is made of are both innovations in that sense, as well as introducing new machinery or IT systems. With all of these, apart from internal input and downstream partners, upstream business partners can play an important role, i.e. buyer–seller relationships are critical. Therefore, selecting (and maintaining) the right suppliers who can effectively contribute to the firm’s innovativeness becomes a new task for purchasing.

Håkansson and Eriksson (1993) establish the link between purchasing and innovation using the idea of networks. According to this view, ideas are developed in close exchange with a series of network partners, resulting in the network members’ power of innovation becoming determined by the activities of their counterparts. A theoretical approximation to innovation, exploring the concept of innovation as an inter-organizational feedback process, is the “systems of innovation” approach

(Edquist, 1997; Freeman & Soete, 1997; Håkansson, 1989; Porter, 1990). Common ground within the systems of innovations approaches is the assumption that “...firms almost never innovate in isolation. In the pursuit of innovation they interact with other organizations to gain, develop, and exchange various kinds of knowledge, information, and other resources. [...] therefore it does not make sense to regard innovating firms as isolated, individual decision-making units.” (Edquist, 1997, p. 1f.).

Based on the systems of innovation approach, an important distinction can be made: who is innovating? Traditionally, innovation has been considered the product of a single person or an individual company. However, on the basis of an extensive historical research, Freeman and Soete argue in favor of an increasing role played by so called “network-innovations”, as opposed to “inventor-innovations” (an invention leading to a radically new product, often commercialised, i.e. innovated, by the inventor himself) and “laboratory-innovations” (a considerable number of specialists are pooled in distinct departments, most of them systematically improving processes or products in their in-house laboratories or research units) (Freeman & Soete, 1997; Gammage & Schiele, 2000; Schiele, 2003; Servatius, 2004). A network-innovation occurs when different actors from different organisations with distinct knowledge bases combine their skills, thus improving an existing product or process or even creating a new one. Unlike well-organized research and development, network-innovations may happen without planning.

Of course, external acquisition of novelties does not necessarily need to follow the network-innovation model, i.e. innovation being the product of a joint development or occurring during work. Innovations can also be purchased from their inventor, e.g. via licensing. Furthermore, it is possible to commission a solution to be developed by a supplier (Quinn, 2000). The key issue: each form of generation or appropriation of innovation requires a different organizational answer and different processes. One way of how to distinguish between processes of innovation is shown in Fig. 1.

The focus of this paper is on the co-development of innovations, either through the integration of a supplier into a new product development process or, not to be neglected, in the context of a continuous improvement process. The outsourcing of development to a partner may also have similarities in the need to assess his power of innovation, while the search for unrelated and exogenous, already “finished” innovations is likely to require different techniques than those discussed here. Procuring innovations directly from their inventors, the focus would be less on the characteristics of the supplier, but more on the technical qualities and the feasibility of the concept proposed. Furthermore, the role of external search strategies would become more relevant in the first instance than the ongoing innovation-fostering management of a business relation.

This goes along with a distinction between more incremental and radical innovations, also referred to as step-by-step vs. leap-wise technological changes (Håkansson, 1989). To introduce radical innovations in a firm which break the established pattern requires other techniques than those which are in the subsequent focus of attention. The role of the supplier in the context dealt

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