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Tiedekunta-Fakultet-Faculty Valtiotieteellinen tiedekunta		Laitos-Institution-Department Department of Economics	
Tekijä-Författare-Author Tanayama, Tanja			
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<p>Tiivistelmä-Referat-Abstract</p> <p>The aim of this study was to analyse systematic differences in the processes underlying different types of innovations. Innovations were differentiated according to their technological nature, which was measured by the radicalness and the complexity of the innovations. The innovations studied were divided into radical and incremental and into complex and simple innovations. Probit models were used to analyse how the development processes underlying radical versus incremental or complex versus simple innovations differ. The theoretical framework of the study was provided by the literature on different innovation theories.</p> <p>The components of the innovation process in focus can be divided into innovation-specific and firm- or sector- specific factors. Innovation-specific factors were related to the origin of the innovation, collaboration during the development work and the role of public subsidies in the innovation process. Firm- and sector-specific factors in turn consisted of the knowledge base of the innovating firm, the size of the firm and the environment in which the innovation was developed.</p> <p>The starting point for the analysis was a unique innovation database collected by the VTT Group for Technology Studies. The database consists of basic information on some 1600 Finnish innovations commercialised in Finland mainly during the 1980s and 1990s and more detailed survey data on some 800 innovations. The analysis was based on a subgroup of this survey data, consisting of 768 innovations. Patent data and firm-level information were linked to the survey data.</p> <p>The results indicate the importance of scientific and technological knowledge in developing radical or complex innovations. The importance of scientific breakthroughs and new technologies as well as collaboration with universities and research centres was pronounced in the case of radical or complex innovations. On the other hand, innovations originating mainly from competitive pressure were more likely to be incremental. The role of public subsidies in research and development work was highlighted in the development of radical or complex innovations. The results also suggest that the environment in which innovations are developed has an effect on the type of innovative activity. Technological opportunities differ among sectors, which is reflected especially in the complexity of innovation. Favourable demand conditions in turn enhance the development of complex innovations, while at the same time allowing room for incremental innovations through more extensive product differentiation.</p>			
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