

Main Types of SMEs Innovations and Their Interdependence

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Abstract

Most innovation studies on SMEs are devoted to the determinants and barriers of the new products development, and to a lesser degree to the process innovations, or their combinations. Other types of innovations, and particularly organisational and marketing ones, remained relatively understudied. Additionally, the prevailing literature tends to examine individual innovation in isolation. There are no many studies that investigate the interdependence of different types of innovations.

The goal of this paper is to propose a conceptual model of the interdependence of main types of innovations and their effects on firm performance. It is based on a literature review related to the types of manufacturing SMEs innovations, their interdependence, and combined effects on performance. The key findings are the following.

The innovation typology usually includes product/service, process, organisational, and marketing innovations. Some researchers considered that process innovation include both non-technological (organisational) and technological changes. According to others, however, the distinction between two types of process innovations is difficult to sustain as many process innovations involve both types of changes. The results of several studies demonstrated that there is a strong interdependence and mutual support between product and process innovations. Other studies found that organisational, marketing and service/product innovations are also interrelated and influence each other.

The empirical researches on the relation "innovation - performance" revealed positive, negative, or even lack of such relations. In general product improvements influence positively firm growth, while the effects of process innovations are not so clear. The positive influence of organizational and marketing innovations on performance was also demonstrated in the litera-

ture. The challenge for the firms is to find a particular combination of a fixed number of innovation activities, which can bring the highest success.

If internal determinants for innovation refer to firm's tangible and intangible resources, their combination, and entrepreneur/manager orientations, the external determinants include government regulations, access to finance, property and contract enforcement, labor market, institutional environment, etc. Barriers to innovations represent the back side of the innovation determinants (the same factors with negative sign), and because of that they are classified also as external and internal.

Based on a literature review a conceptual model of the interdependence of four types of innovations (organisational, product, process, and marketing) and their combined effects on firm performance is proposed. It is expected that the model will be tested further on data from a survey of 500 manufacturing SME in Bulgaria.

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