

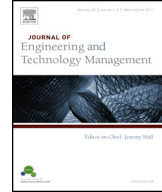


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Contents lists available at ScienceDirect

Journal of Engineering and Technology Management

journal homepage: www.elsevier.com/locate/jengtecman



Intangible aspects of innovation capability in SMEs: Impacts of size and industry



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ARTICLE INFO

Keywords:

Innovation capability
SME
Size
Industry

ABSTRACT

In the current literature, developing innovation capability in an organization is increasingly important. The approach of this study is quantitative. The data for the study were gathered using a web-based questionnaire targeting Finnish SMEs employing 11–249 persons and with less than 50 Meuro in revenue. A sample of 2400 SMEs was randomly selected. The response rate was 7.68 percent. This paper contributes to current understanding by presenting a construct for categorizing the intangible aspects of organizational innovation capability. The study also reveals that a firm's size or industry does not have a remarkable effect on the firm's innovation capability.

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Introduction

The successful operation of firms in almost all industries is becoming highly dependent on the firms' abilities to produce innovations. Innovation is a process of turning opportunities into new ideas and turning these ideas into widely used practices (Tidd et al., 2005). Innovation is more than just a great idea; it is the opportunity to solve a problem that matters. The key is executing an idea in useful practice. Scholars have suggested that innovation capability is a multi-faceted construct. The categories used for innovation capability often adopt a certain type of innovation, such as product innovation, instead of the overall innovation capability (Ibrahim et al., 2009). In addition, innovation capability has been divided into radical and incremental innovation capabilities (Sen and Egelhoff, 2000).

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Moreover, the current literature has concentrated on evaluating a firm's innovation capability by defining the types of capabilities that form the overall innovation capability. For example, product innovation capability, process innovation capability, market innovation capability, strategic innovation capability, organizational capability, manufacturing capability, networking capability, entrepreneurial capability, and R&D capability have been studied (see [Christensen, 1995](#); [Guan and Ma, 2003](#); [Wang and Ahmed, 2004](#); [Forsman, 2009](#)). However, no dominant theoretical perspective integrates the individual sections of innovation research ([Drazin and Schoonhoven, 1996](#)). Therefore, innovation capability needs to be defined through an empirical study using existing innovation research.

The concept of innovation capability presented in this paper is intangible because innovation capability refers to the potential to create innovations. Due to the special features of SMEs, the potential for innovation is observed as more important than the commercial end. The scarcity of resources, including human resources (both management and personnel), financial capital, time, and security, has been considered one of the features of SMEs (e.g., [Singh et al., 2008](#); [Ates and Bititci, 2011](#)). Although size represents a weakness in terms of available resources, it favors a flat organizational structure with a lack of bureaucracy. This size dependence allows for flexibility, adaptability and speed in responding to the changing environment ([Garengo et al., 2005](#)). For this reason, SMEs usually have a high potential for innovation, which may result in types of innovations other than just commercial products. Innovation capability, similar to intangibles in general, is hard to specify directly, but it can be specified by defining closely related aspects. These aspects of innovation capability are also innovation activity inputs. According to [Davila et al. \(2006\)](#), the inputs are the resources dedicated to creating innovations. These inputs may be tangible, such as people, money, time, equipment, or intangible, such as motivation, knowledge and firm culture. Many studies have presented intangible aspects related to innovation capability ([Lawson and Samson, 2001](#); [Martensen et al., 2007](#); [Skarzynski and Gibson, 2008](#); [Tura et al., 2008](#); [Paalanen et al., 2009](#)) but often from a theoretical perspective. The results have seldom been based on empirical studies, as is the case in this study. In addition, this study caters to various aspects of innovation capability, departing from the majority of existing empirical studies that focus only on one or two intangible aspects of innovation capability (e.g., culture, structures).

The objective of this study is to define the intangible aspect of a firm's innovation capability using a questionnaire targeting Finnish SMEs. The paper contributes to current understanding by presenting a construct for categorizing the intangible aspects of a firm's innovation capability in practice. In this respect, the nature of the study is explorative. Another purpose of the paper is to clarify whether innovation capability differs with the size and industry of the firm. The results contribute to the existing discussion on innovation capability by diminishing the gap between theory and practice and by building requisites for further research.

Literature review

Definition of innovation capability

According to [Lawson and Samson \(2001\)](#), innovation capability is a theoretical framework aimed at describing the actions that can be taken to improve the success of innovation activities. Innovation capability consists mainly of the firm's intangibles. Intangibles are the non-physical characteristics of a firm, which will produce value in the future ([Kannan and Aulbur, 2004](#)). Intangibles, which are referred to as potential in this paper, are not assets as such. Exploiting intangibles generates results ([Bontis, 2001](#); [Marr, 2007](#)). Innovation capability is composed of the main processes within the firm and cannot be separated from the main practices because innovation capability is the potential to carry out the practices. [Neely et al. \(2001\)](#) also suggest that a firm's innovation capability is the potential to generate innovative outputs. Similarly, [Lawson and Samson \(2001, p. 384\)](#) define innovation capability as "the ability to continuously transform knowledge and ideas into new products, processes and systems for the benefit of the firm and its stakeholders." [Sáenz et al., 2009](#) consider innovation a dynamic capability with multiple aspects (i.e., a capability that allows the firm to integrate, build, and reconfigure internal and external competences to address rapidly changing

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