

Radical Technological Innovation - Comparison of a Critical Success Factors Framework with Existing Literature

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Abstract : Radical technological innovations enable companies to reach strong market positions and are thus desirable. On the other hand, the innovation process is related to significant costs and risks. Hence, the knowledge of the factors that influence success is crucial for technology driven companies. In a previous study, we have developed a conceptual framework of 25 Critical Success Factors for radical technological innovations and mapped them to four main categories: Technology, Organization, Market, and Process. We refer to it as the Technology-Organization-Market-Process (TOMP) framework. Taking the TOMP framework as a reference model, we conducted a structured and focused literature review of eleven standard books on the topic of radical technological innovation. With this approach, we aim to evaluate, expand, and clarify the set of Critical Success Factors detailed in the TOMP framework. Overall, the set of factors and their allocation to the main categories of the TOMP framework could be confirmed. However, the factor organizational home is not emphasized and discussed in most of the reviewed literature. On the other hand, an additional factor that has not been part of the TOMP framework is described to be important - strategy fit. Furthermore, the factors strategic alliances and platform strategy appear in the literature but in a different context compared to the reference model.

Keywords : Critical Success Factors, radical technological innovation, TOMP framework, innovation process

Conference Title : ICETI 2015 : International Conference on Engineering, Technology and Innovation

Conference Location : Istanbul, Türkiye

Conference Dates : September 28-29, 2015