A classification of strategies for the development of product configurators

Product configurators are a subtype of software-based expert systems with a focus on the creation of product specifications. Product configurators are increasingly being applied by engineering-oriented companies, which has resulted in many positive effects, such as reduced lead times, fewer errors, shorter learning periods for new employees, etc. Unfortunately, also many configuration projects fail because the task of developing the configurator turns out to be much more difficult and time-consuming than anticipated. In order to minimize the chance of project failure, it is crucial to apply the right strategy. However, the literature does not discuss different strategic alternatives in a detailed manner, but only provides generalised recommendations of single strategies. To deal with this issue, this paper defines three main and four additional strategies for the development of product configurators. The strategies are defined based on literature, seven named case studies, and other case experiences of the authors. The paper deduces the advantages and disadvantages of the individual strategies, and gives a general recommendation of which type of strategy to pursue in different types of projects.