

**What Do Patent Indicators Really Measure?  
A Structural Test of 'Novelty' and 'Inventive Step' as Determinants of Patent  
Profitability  
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As of today, patent based indicators such as citations are widely used to assess innovative output. Despite the large variety of empirical studies in the field, however, the exact relation between indicators and innovation value is still based on multifarious assumptions that are not unambiguous. This paper provides the first empirical test of patent indicators as value measures in the structural form. At the same time and also originally, the paper empirically tests the fundamental hypothesis that patentability requirements such as novelty and inventive step are positively correlated with innovation value. The study draws from a newly assembled data set comprising the entity of European polymer patents between 1978 and 1990. The estimations are carried out using an original two stage discrete choice model that disentangles effects of technical and other value driving properties of innovations. The results support the assumptions that novelty and inventive step enhance a patent's value. They confirm the importance of backward citations, family size, and forward citations as value indicators. However, they expand on and partly break with older explanations of why patent indicators correlate with profitability.