Review of Research on Effectiveness Evaluation of Technology Innovation Policy

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Abstract : The technology innovation has become the driving force of social and economic development and transformation. The guidance and support of public policies is an important condition to promote the realization of technology innovation goals. Policy effectiveness evaluation is instructive in policy learning and adjustment. This paper reviews existing studies and systematically evaluates the effectiveness of policy-driven technological innovation. We used 167 articles from WOS and CNKI databases as samples to clarify the measurement of technological innovation indicators and analyze the classification and application of policy evaluation methods. In general, technology innovation input and technological output are the two main aspects of technological innovation index design, among which technological patents are the focus of research, the number of patents reflects the scale of technological innovation, and the quality of patents reflects the value of innovation from multiple aspects. As for policy evaluation methods, statistical analysis methods are applied to the formulation, selection and evaluation of the after-effect of policies to analyze the effect of policy implementation qualitatively and quantitatively. The bibliometric methods are mainly based on the public policy texts, discriminating the inter-government relationship and the multi-dimensional value of the policy. Decision analysis focuses on the establishment and measurement of the comprehensive evaluation index system of public policy. The economic analysis methods focus on the performance and output of technological innovation to test the policy effect. Finally, this paper puts forward the prospect of the future research direction.

Keywords : technology innovation, index, policy effectiveness, evaluation of policy, bibliometric analysis
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