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A Study on Forecasting System of Patent Registration Based on Bayesian Network

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ABSTRACT

Recently the importance of intellectual property has been increased. There has been various ways of research on analy- sis of companies, forecast of technology and so on through patents and many investments of money and time. Unlike traditional method of patent analysis such as company analysis, forecasting technologies, this research is to suggest the ways to forecast registration and rejection of patents which help minimize the efforts to register patents. To do so, in- formation such as inventors, applicants, application date, and IPC codes were extracted to be used as input variables for analyzing Bayesian network. Especially, among various forms of Bayesian network, we used Tree Augmented NBN (TAN) to forecast registration and rejection of patent. This is because, TAN was assumed to have dependence between variables. As a result of this Bayesian network, it was shown that there are nearly more than 80% of accuracy to fore- cast registration and rejection of patents. Therefore, we expect the minimization of time and cost of registration by forecasting registration and rejection of R&D patent through this research.

KEYWORDS

Bayesian Network; Patent Registration; Tree Augmented NBN; Forecast

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