Evaluating Patents Using Damage Awards of Infrigement Lawsuits: A Case Study

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Abstract

As the era of knowledge economics rose, the patent became one kind of knowledge outcome. This study aimed at the basis of the patent law and proposed an integrated evaluator for patent management. The damage award of a patent infringement lawsuit was deemed to be the legal value of the patent. 65 effective samples were extracted from 4,289 patent infringement lawsuits retrieved from the U.S. district courts. 17 indicators were summarized to quantitatively describe the dimensions of the patents. Back-Propagation Neural Network was applied to build the patent valuation model, wherein the 17 indicators were the inputs and the damage award was the output. The patent valuation model was validated to be feasible by error analysis. The integrated evaluator for patents was then established by transforming the output of the patent valuation model via the Z-score. The proposed integrated evaluator accommodated to the patent management effectively.

Keyword: Patent Valuation; Back-Propagation Neural Network; Damage Award; Patent Infringement; Patent Assessment