

Continuing applications and quality of inventions

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Abstract

This paper empirically examines how continuing applications are used and how they strengthen patent protections of the inventions in the U.S. patent system. There are three types of continuing application procedures: Continuation application, Division, and Continuation in part (CIP). Applications using these procedures can enjoy the benefit of the prior application's filing date. These procedures have been criticized for increasing uncertainty in R&D, burdens for examiners, or leading to litigations, while they are supposed to protect pioneering inventions. First, I analyze whether inventors with pioneering inventions use more continuing applications. I treat the existence of provisional applications and the number of citations to non-patent literature of non-provisional applications as an indicator of pioneering status of these inventions. We have found that the pioneering inventions in these terms make significantly frequent use of continuing applications. Next, I analyze how continuing applications enhance the patent protection of the inventions proxied by forward citations to the patent family. We have found that each type of continuing applications have significantly positive effects on forward citations to family. The first CIP subsequent to original application enhance the value of forward citation to the family by about 28% and the first continuation by 15%. These values are respectively 19% and 7% even after controlling the number of inventors, backward citations, citations to non-patent literature.

Keyword: Patent, Continuation, Continuation in part, Patent family, Intellectual property

JEL classification: O34, O32, O31

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