CHAPTER 9

Commercial Success: Economic Principles Applied to Patent Litigation[1]

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A party accused of infringing a patent may contend that the asserted patent is invalid because of obviousness. To help evaluate that issue, courts may consider whether the patented invention is a "commercial success." Determining whether an invention has, or has not, been a commercial success is primarily an economic exercise, and economists increasingly assist courts in evaluating this issue. Case law indicates that courts have traditionally (1) looked at such factors as increasing revenues, gain in market share, and public acclaim in an attempt to determine whether a product has been a commercial success and (2) considered whether the patent holder has established a "nexus" between the claimed invention and the product's commercial success. In this chapter we discuss these tests and consider them alongside another test suggested by economic principles, namely, whether the patented invention has earned or can be expected to earn a positive net return on invested capital after accounting for all the relevant costs associated with developing and commercializing the product. We analyze the commercial success standard in the context of two recent cases in which we applied these principles.

INTRODUCTION

A party accused of infringing a patent may contend that the asserted patent is invalid because of obviousness. That contention may be rebutted by a showing that the patented invention is a "commercial success"—one of several "secondary considerations" that courts

look to for identifying the differences between the patented invention and the prior art. These secondary considerations—known as objective indicia of nonobviousness—also include such factors as copying, long felt but unsolved need, failure of others, and licensing.[2]

Determining whether an invention has, or has not, been a commercial success is primarily an economic exercise, and economists increasingly assist courts in evaluating this issue. Case law indicates that courts have traditionally looked for such characteristics as increasing revenues, gain in share in an appropriately defined market, and public acclaim in an attempt to determine whether a product has been a commercial success. Courts have also considered whether the patent holder has established a "nexus" between the claimed invention and the product's commercial success—that is, whether the commercial success, if evident, is due to the patented feature as opposed to some other characteristic of the product or mode of selling employed by the manufacturer.

From an economic perspective, commercial success could in principle be defined by a single criterion: Does the patented invention earn a positive net return (risk-adjusted) on invested capital after accounting for all relevant costs associated with developing and commercializing the patent as well as any alternatives available to the patent holder? Patents exist to protect the human and financial investment used to develop new products, services, or processes. This investment, however, is beneficial, from a social perspective, only if consumers are willing to purchase an embodiment of the invention at such a price as to fully compensate the inventor for all costs incurred in bringing the product to market.[3] Put simply, patents are not needed to protect inventors from making poor investment decisions.

The courts' use of the previously mentioned factors is not necessarily in conflict with this definition, and many—perhaps most—previous decisions made by courts are likely to have been consistent with it. Given the limitations on available data, it is entirely reasonable that an analysis of commercial success should consider and place significant weight on the traditional measures such as market share or revenue growth. However, under certain circumstances, rapid sales growth and gains in market share will not *necessarily* reflect a profitable underlying invention. Moreover, calculating the proper measure of profitability can be a complicated task and should be considered in an appropriate context—for example, relative to an appropriate benchmark or alternative. Consequently, it is our opinion that courts should look more deeply into the economic characteristics of the product before arriving at a determination of the commercial success of the patent.

In this chapter we consider whether the tests traditionally used by the courts are consistent with the criterion suggested by economic principles. We then analyze the commercial success standard in the context of two recent cases in which we applied these principles.

Summary of the Case Law

In *Graham v. John Deere Co.* (1966), the seminal case identifying commercial success as a relevant "secondary consideration" in a determination of patent validity, the U.S. Supreme Court cited a *University of Pennsylvania Law Review* article that focused on the consumer perspective for evaluating the commercial success of a patent. The article stated that "[t]he