Cost Pass through: An Impediment to Innovation?

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Abstract

This paper investigates a model of endogenous innovation which results in product differentiation. Prior to innovation the firms supplied an entirely homogeneous product. Unlike other models of product differentiation, the cost of innovation is passed on to consumers in the form of increased prices. However, some consumers do not immediately recognize the innovation and/or its benefits. Such consumers express an unwillingness to pay for this innovation by purchasing from a firm who does not innovate. A portion of this same fraction of consumers eventually realize the innovation and resume purchases with the innovative firm with an acceptance of the higher price. Under reasonably broad conditions it is shown that both the innovator's and the non-innovator's profits will increase after innovation. Despite the friction created by switching consumers, continued innovation on the part of the first firm to innovate is optimal.
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