An agent learns dynamically about the profitability of a project and decides when to make an irreversible investment. The agent seeks to maximize his reputation for learning. Equilibrium strategies are dictated by the prior belief that the project is profitable: a high-ability agent plays a cutoff strategy in every period, where the cutoffs are bounded below by the prior. Agents are reputationally rewarded for both speed and accuracy, but accuracy becomes gradually less consequential for reputation over time. Compared to a benchmark where the agent has no reputational motive, investment timing may either be premature or delayed. For projects with a substantial downside potential, reputation induces premature investment. Meanwhile, when projects have a positive net present value ex-ante, reputation induces delayed investment.