

TABLE A-7

**Case study: Hoverboards**

(Innovation failure summary)

Variable	Description
Innovation	Simplified version of Segway that was easier to transport and cheaper to buy, launched in May 2013
Radical or incremental	Radical
Category	Product
Sector	Transportation
Failure timing	Maturity stage, failure in June 2016
Failure root cause	Poorly defensible position <ul style="list-style-type: none"> <li>• Difficulty in identifying and enforcing relevant patents, leading to market saturation with unlicensed knockoffs</li> <li>• Copycats used subpar production and safety standards, leading to reports of severe injuries and fires and, ultimately, the product's banning</li> </ul>
Failure root cause timing	Growth
Outcomes	<ul style="list-style-type: none"> <li>• Hoverboards were banned on all major airlines</li> <li>• Most large retailers, including Amazon, Walmart, and Target, pulled hoverboards from their physical and online stores</li> <li>• CPSC introduced new safety standards that effectively banned most hoverboards from being sold in the United States</li> <li>• Given market conditions, it was no longer economically viable for the original producer to produce a CPSC-compliant product</li> </ul>
Business insight into the innovation process	na
Pivot	na
Pivot enabler	na

na = not applicable.

CPSC = Consumer Product Safety Commission.

**Source(s):**National Center for Science and Engineering Statistics and SRI International, special research (2020) of 2010–20 open-access articles, including *MIT Technology Review*, *New York Times*, *Fast Company*, U.S. General Accountability Office, and *Defense News*.