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Emergent Process of a Dominant Design: A Revisit of the Bicycle Industry

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Abstract

The notion of dominant design has received much attention in technology and strategic management. Despite abundant research into dominant design, little is known about the emergent process of dominant design. To fill this gap, this study explores how a dominant design emerges in an industry and which factors affect it. Based on analysis of the case of bicycle industry from the early to the late 19th century, this study clarifies the concept of the “value standard,” which plays a critical role building a dominant design. The findings reveal how the value standard is affected by technological innovation and socio-political factors and how the design that exceeds the threshold of the value standard becomes the dominant design. The findings also indicate how both component and architectural innovation generate various designs that may become the dominant design and how alternative designs converge with the dominant design under selection pressure.

Keywords

Value standard, Dominant design, technological innovation, socio-political factors, safety bicycle.

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