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Innovation in China's Agricultural and Food Sectors: An Empirical Analysis Using Firm-Level Data (Summary)

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In recent years, there has been growing economic interest in R&D and patent activities within the agricultural and food sectors. As the world's second most populous country, China's stable food supply plays a vital role in global food security. Enhancing productivity in agriculture and agri-food industries is essential to achieving this goal.

This paper focuses on publicly listed firms in China's agriculture, agricultural processing, and food and beverage manufacturing sectors. Using patent applications as an indicator of innovation, it examines the factors influencing firms' patenting behavior and investigates how ownership structure affects this behavior.

The findings can be summarized as follows: First, R&D expenditure and firm size (measured by fixed assets or sales) have a significant positive impact on patent applications. Second, within state-owned enterprises, firm size remains a significant driver of patenting, while R&D expenditure is not statistically significant. In contrast, both R&D investment and firm size significantly promote patenting in private firms. These results suggest that ownership structure plays an important role in shaping firms' innovation activities.

Keywords: Patents, Agriculture, Innovation, Firm Ownership