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An Empirical Research of Relationship between Brand and Enterprise Sustainable Development

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Abstract

Abstract: We are currently in an era of rapid technological advancement and information explosion, where technological innovation is continuously reshaping people's lives and modes of production. In recent years, China has placed great importance on nurturing and fostering technological innovation capability, rapidly progressing towards the goal of becoming a technological innovation powerhouse. The establishment of the Sci-Tech Innovation Board has provided crucial support for small and medium-sized technology-driven companies. Despite being established relatively recently and having modest sizes, these companies possess immense potential for development, vitality, and courageous innovative thinking. They are poised to become a cornerstone of China's future as it aspires to become a leading innovation-driven nation (Zhang, 2022). Generally speaking, the establishment of the Sci-Tech Innovation Board usually follows the development of a mature or large-scale national main board market. Its primary role is to temporarily provide opportunities for small and medium-sized companies that do not meet the listing requirements of the main board market but urgently require liquidity for growth. However, before the establishment of the Sci-Tech Innovation Board, small and medium-sized companies in China faced significant difficulties in financing with high financing costs. After years of effort, the Sci-Tech Innovation Board has become an integral part of China's capital market, effectively complementing the main board market. However, the accompanying issue of "three highs" (high stock prices, high oversubscription rates, high price-to-earnings ratios) has become particularly pronounced in the Sci-Tech Innovation Board market (Gao, 2020).

Initial Public Offering (IPO) underpricing generally pertains to the scenario of a company's IPO, manifested by the closing price on the first day being higher than the offering price. From an investor's perspective, this implies that investors can garner additional gains right from the company's debut on the stock exchange. Scholars in the international academic community have metaphorically depicted this phenomenon as 'placing the money bag on the table for investors to help themselves,' vividly portraying its essence (Liu, 2022). IPO underpricing is not exclusive to the Chinese capital market but is prevalent across global markets. Previous research has primarily explained

underpricing in the primary market for new shares from the perspective of information asymmetry. In recent years, the field of behavioral finance has embarked on exploring the causes of IPO underpricing, with some viewpoints suggesting its connection to post-listing premiums in the secondary market (Wang & Cheng, 2022). In the past, influenced by China's stringent regulatory control over the capital market, relatively immature secondary market investors, and constraints on underwriters' issuance pricing capabilities, the issue of IPO underpricing in China has been particularly pronounced, severely affecting the operational efficiency of the capital market (Han, 2022). In response to this issue, China's securities market has also embarked on a series of institutional reforms, dedicated to fostering the sound operation of the stock market.

The core objective of this paper is to explore the unique innovation attribute—innovation capability—of companies listed on the Sci-Tech Innovation Board and its impact on IPO pricing efficiency within the context of the registration-based system. To address the aforementioned inquiry, a selected number of Sci-Tech Innovation Board companies are chosen as the research samples. As constructing a multiple linear regression model, research & development (R&D) expenditure, intellectual property intensity, and patent innovation capability are used as independent variables to represent the innovation capability of these companies. The first-day price change of newly listed stocks is adopted as the dependent variable to measure the extent of IPO underpricing, thereby investigating the relationship between the innovation capability of Sci-Tech Innovation Board companies and the level of IPO underpricing. In a more comprehensive analysis, the study will introduce venture capital as a moderating variable to examine whether venture capital institutions play a regulatory role between innovation capability and IPO underpricing. Furthermore, investor quotes will be introduced as intermediary variables to study the relationship between innovation capability, investor quotes, and IPO underpricing rate. This step aims to test whether investor quotes mediate this relationship and thus enhance the overall understanding of this paper.

The significance of this paper lies in various aspects. First and foremost, it combines the characteristics of the Sci-Tech Innovation Board to uncover the interplay between company innovation capability and IPO pricing efficiency under the registration-based system. Simultaneously, it delves into the primary factors behind IPO underpricing in China, compelling upcoming companies to enhance their disclosure of R&D activities

and patent situations to mitigate internal and external information asymmetry. Underwriters, venture capital institutions, and institutional investors need to bolster their professional standards to exert a professional guiding role during the market-oriented inquiry-based pricing process. Furthermore, this paper contributes to the existing research landscape. In terms of indicator selection, beyond utilizing R&D expenditure and patent quantity as markers of innovation, the inclusion of intellectual property intensity introduces a more comprehensive set of indicators. Moreover, the research pays close attention to the causal relationships between variables, testing the intermediary role of investor quotes in the IPO process. This approach provides a clear portrayal of the strategic interactions among listed companies, underwriters, and investors, expanding the current understanding of the pathways and associated influencing factors of IPO underpricing.

Keywords: Company technological innovation capability; IPOs; underpricing; pricing; influencing factors

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