Trademarks in Entrepreneurial Finance

Trademarks are an important determinant of the economic value created by firms. A trademark is a word, symbol, or other signifier used to distinguish a good or service produced by one firm from the goods or services of other firms. Firms use trademarks to differentiate their products from those of other firms, reduce search costs for consumers, and to generate consumer loyalty through advertising, all of which may affect their product market performance and therefore their financial performance. However, despite the importance of trademarks for the economic activities of firms, there is a relatively little evidence on the role played by trademarks in entrepreneurial finance: i.e., in the financing, performance, and valuation of young firms at various stages in their life. One exception is Block, De Vries, Schumann, and Sandner (2014), who investigate the relation between the number of trademark applications by VC-backed start-up firms and the valuations of these start-up firms by VCs.

The objective of this paper is to fill the above gap in the literature. We develop testable hypotheses regarding the relation between the number of trademarks held by firms and various aspects of VC investments in them; their probability of successful private-firm exit (IPOs or acquisitions); the IPO and secondary market valuations of the subsample of these firms that go public; institutional investor participation in these IPOs; their post-IPO operating performance; and the post-IPO information asymmetry faced by these firms. We test these hypotheses using a large and unique dataset of 55,977 trademarks registered by VC-backed firms over the years 1985-2015 and data on VC investment in these firms, data on their exit decisions, and on the IPO valuations and post-IPO operating performance of the subsample of these firms that go public.

We hypothesize that trademarks play two economically important roles in entrepreneurial finance. First, as we discussed earlier, trademarks allow start-up firms to differentiate their products from those of other firms, reduce search costs for consumers, and to generate consumer loyalty through advertising, all of which may affect their product market performance and therefore their financial performance. From now onwards we will refer to this role of trademarks as their "protective role." Second, trademarks may convey credible (but possibly noisy) information about future firm performance (and therefore intrinsic firm value) to private investors such as VCs and public equity market investors, in a setting of asymmetric information between firm insiders and outside investors. Different from patents (which primarily capture technological innovation), a trademark may signal the intention and ability of a firm to launch and continue a new product line (associated with that trademark). Therefore, assuming that it is costly to acquire and maintain trademarks, a firm's trademark portfolio may serve as a credible signal of firm value to both private investors and public equity market investors (such as investors in the IPO market or potential acquirers of the firm). From now onwards, we will refer to this role of trademarks as their “informational role.”

The above broad hypotheses about the protective and the informational role of trademarks generate two sets of testable predictions about entrepreneurial firms. We develop testable hypotheses regarding the relation between the number of trademarks held by a firm and various aspects of VC investment in it; its probability of successful exit; its IPO and secondary market valuation; institutional investor participation in its IPO; its post-IPO operating performance; and its post-IPO information asymmetry. We test these hypotheses using a large and unique dataset of trademarks held by VC-backed firms and data on VC investment in these firms, on their exit decisions, and on the IPO characteristics (of those firms going public). We find that the number of trademarks held by an entrepreneurial firm is associated with a greater VC investment amount spread over a smaller number of financing rounds; a greater probability of successful exit; higher IPO and secondary market valuations; greater institutional investor IPO participation; smaller post-IPO equity market information asymmetry; and better post-IPO operating performance. We establish using an instrumental variable analysis (using trademark application examiner leniency as the instrument) that the above results are causal.

Overall, our results show that the trademark portfolio held by an entrepreneurial firm is an important determinant of the eventual success of the firm. First, we show that the trademarks held by an entrepreneurial firm help it to attract financing on favorable terms, both as a private firm (from VCs) and later on from public equity market investors (by yielding the firm higher IPO valuations). Second, we have shown that the trademarks held by an entrepreneurial firm are an important predictor of its eventual success, both as a private firm (through a higher successful exit probability) and subsequently as a public firm through helping it to generate better post-IPO operating performance. Our empirical analysis also helps to shed some light on two channels through which trademarks help entrepreneurial firms obtain financing on more favorable terms and lead to better financial performance. First, by signaling a higher probability of success (intrinsic value) to private investors like VCs and to public equity market investors (such as institutional investors and potential acquirers). This is the informational role of trademarks.

Second, by enabling the firm to perform better in the product market (e.g., through giving it some monopoly power over its products), which, in turn, translates into better financial (operating) performance. This is the protective role of trademarks.

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