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Brand perception, cash flow stability, and financial policy ☆

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ABSTRACT

This paper demonstrates that intangible assets play an important role in financial policy. Using a proprietary database of consumer brand evaluation, I show that positive consumer attitude toward a firm's products alleviates financial frictions and provides additional net debt capacity, as measured by higher leverage and lower cash holdings. Brand perception affects financial policy through reducing overall firm riskiness, as strong consumer evaluations translate into lower future cash flow volatility as well as higher credit ratings for potentially volatile firms. The impact of brand is stronger among small firms, contradicting a number of reverse causality and omitted variables explanations.

> *"If this business were split up, I would be glad to take the brands, trademarks and goodwill and you could have all the bricks and mortar—and I would fare better than you".*
> John Stuart, the Chairman of Quaker, ca. 1900.

1. Introduction

This paper explores the impact of an important intangible asset, the firm's brand, on financial policy. Brand is a substantial component of a firm's total value: according to a 2010 estimate, market value of brands accounts for over 30% of the market capitalization of Standard and Poor's (S&P) 500 firms, and exceeds the book value of equity of those firms.[1] Existing literature has largely assumed that intangibles increase firm riskiness, as their value is destroyed in financial distress and economic downturns. This paper shows that this is not the case for all intangible assets, as strong brand can affect financial structure by reducing the riskiness of future cash flows. Using a novel survey-based data set of consumer brand evaluations, I demonstrate that positive perception of firms' products reduces forward-looking volatility of cash flows, and insulates firms during periods of recession. The lower

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[1] See Gerzema and Lebar (2008, pp. 9–12).

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riskiness associated with strong brand increases the probability that firms will meet their future financial obligations, and alleviates financial frictions, allowing firms to have higher levels of debt and smaller cash cushions.

I first establish the cash flow volatility mechanism through which brand is linked to financial decisions, and demonstrate how consumers' positive opinion of a product reduces the riskiness of the firm. Although a critical assumption of perfect competition is that all sellers provide standard goods, in practice, individuals perceive different brands of the same product as heterogeneous, preferring some brands over others. Chamberlin (1933) shows that the product differentiation creates "monopolistic competition," in which a firm's market becomes separated from its competitors, and clienteles of consumers with varying degrees of product loyalty evolve. Loyal consumers are more likely to repeatedly purchase the product they value and are less likely to switch to competitors. This behavior ensures a stable level of cash flows over time, and insulates the firm from downside shocks.

I examine the validity of the cash flow volatility mechanism by empirically testing whether favorable brand perception reduces the riskiness of the firm. The data come from a marketing database, Brand Asset Valuator (BAV), the world's largest study of consumer evaluation across different product brands.[2] Research in the marketing field demonstrates that positive consumer evaluations of a brand are associated with higher loyalty and larger purchase probabilities.[3] As a result, favorable consumer views of a firm's products can provide information about characteristics of its intangible assets that are not reflected in the balance sheet. My main proxy for consumer brand perception is brand *Stature*, which measures how familiar households are with the brand and whether they have a positive regard towards it.

I evaluate firms' riskiness as a function of brand perception in a number of ways. First, I find that firms with higher brand *Stature* experience lower forward-looking volatility of cash flows at both the individual and industry-adjusted level. The results are robust to controlling for the level of asset tangibility and historical measures of cash flow volatility. Second, I demonstrate that the relation between brand strength and firm riskiness also holds in periods of economic downturns. Specifically, I examine whether firms with strong brand perception suffer more during recessions, as wealth-constrained consumers become more price conscious and less sensitive to their personal preferences. Matched-sample analysis reveals that this is not the case: firms with high brand *Stature* experience better operating performance, compared to their less consumer-valued peers. Finally, I ask whether firms with a strong brand have a lower probability of bankruptcy, as measured by the credit ratings on their debt. The results show that credit ratings of firms operating in potentially risky environments (as measured by historical cash flow volatility) improve with positive brand perception of products. Therefore, strong brand is especially beneficial in reducing the default probabilities among apriori less stable firms.

After establishing that favorable perception of a brand is associated with lower cash flow volatility and lower bankruptcy risk, I analyze the implications of brand loyalty for financial policy. First, firms with a strong brand perception will be able to enjoy the benefits of higher stability and lower default probability by taking on more debt. In addition, stable levels of cash flows provide a ready source of future liquidity, reducing the levels of cash reserves that firms have to maintain for precautionary reasons. In support of these arguments, I find that firms with stronger brand perception hold more leverage: a one standard deviation increase in brand *Stature* increases market leverage of the median firm by almost 2%. Firms with strong brand perception also hold substantially less cash compared to firms with otherwise similar characteristics.

Next, I address alternative explanations and the possibility of reverse causality concerns. Brand perception could be endogenously determined if firms with easy access to debt capital decide to actively invest in altering consumer opinions about their products through promotions, advertising, and quality improvement. If this is the case, the relation between brand and financial policy variables should be stronger among firms with established reputations in financial capital markets, as they can raise external capital at low cost and allocate more resources to strategic brand management. To examine this possibility, I include the interaction of brand *Stature* and size in leverage and cash holdings estimations, and find that the effect of brand perception on financial decisions is about twice as strong in magnitude among small firms. A one standard deviation increase in brand *Stature* allows for more than 4% of additional debt capacity and reduces cash holdings by 4.5% for a firm in the 25th percentile. These results are inconsistent with the notion that financially established firms with easy access to external capital allocate more resources to the enhancement of their brand image. The overall evidence indicates that potentially opaque firms with limited access to external capital markets are those that obtain more financial flexibility when they have strong brands.

I also examine whether brand perception could be affected by the proximity to bankruptcy. If consumers anticipate that the quality of the brand will decrease in financial distress, they could revise their opinions of a brand in anticipation of an upcoming bankruptcy. To address this possibility, I compare changes in brand *Stature* when firms experience a downgrade along different points of the credit ratings spectrum. If proximity to distress reduces consumer opinion of a brand, then the higher is the spike in default probability following the downgrade, the steeper should be the decrease in brand perception. However, I do not find support for this explanation, as firms that are downgraded within the sub-investment grade spectrum do not lose more brand loyalty than those firms that are downgraded within the A-rating range. Taken together, the results are inconsistent with the idea that brand perception is affected by financial health, or that firms with strong brand perception are more concerned about default probabilities than their lower-valued peers. In fact, the findings suggest that brand perception provides an advantage in obtaining good credit ratings with smaller financial adjustments needed.

[2] Published academic studies in marketing, based on BAV data, include Mizik and Jacobson (2008, 2009), Bronnenberg, Dhar, and Dube (2007, 2009), and Romaniuk, Sharp, and Ehrenberg (2007).

[3] See, among others, Starr and Rubinson (1978), Rao and Monroe (1989), and Dodds, Monroe, and Grewal (1991).