The Use of Credit Card Debt by New Firms

Sixth in a series of reports using data from the Kauffman Firm Survey

August 2009

KAUFFMAN
The Foundation of Entrepreneurship

The Kauffman Firm Survey

2004 2005 2006 2007 2008 2009 2010 2011

Prepared By:

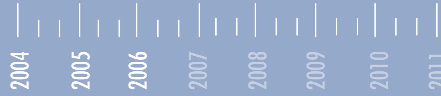
Robert H. Scott, III

Assistant Professor of Economics and Finance

Department of Economics and Finance, Leon Hess School of Business

Monmouth University

The Kauffman Firm Survey



The Use of Credit Card Debt by New Firms

Sixth in a series of reports using data from the Kauffman Firm Survey

Prepared By:

Robert H. Scott, III

Assistant Professor of Economics and Finance

Department of Economics and Finance, Leon Hess School of Business

Monmouth University

August 2009

KAUFFMAN

The Foundation of Entrepreneurship

The author acknowledges the financial support of the Ewing Marion Kauffman Foundation through a small grant and access to the KFS data in the NORC Data Enclave. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the Kauffman Foundation.

© 2009 by the Ewing Marion Kauffman Foundation. All rights reserved.

EXECUTIVE SUMMARY

This report uses data from the Kauffman Firm Survey (KFS) to study the credit card debt characteristics of new firms.[1] It specifically investigates whether revolving credit card debt reduces a firm's probability of survival. More than half of all new firms rely on debt financing when starting operations. A vast majority of these businesses rely on credit card debt to fill any equity gap. This debt financing strategy can be very expensive. While credit card debt provides needed short-term funding, reliance on this type of financing may lead many businesses into a long-term liquidity drain that affects their financial stability—and thus survival.

Credit Cards' Role in New Business Financing

Small businesses play an integral role in the U.S. economy. They employ roughly half of all private-sector workers and, each year since the mid-1990s, small businesses were responsible for creating between 60 percent and 80 percent of new jobs (Kobe, 2007). This is not surprising, considering that during this same period an average of more than 550,000 new businesses were created annually in the United States. It is important, therefore, to study new businesses and identify the primary factors that most influence their success or failure. Shane (2008) estimates that 45 percent of new businesses survive five years. The three-year survival rate for new firms in the Kauffman Firm Survey is 78.5 percent.[2] One of the most commonly cited reasons businesses close is financial problems (Berger and Udell, 1998; Shane, 2008). New businesses have less access to formal credit markets than established businesses do (Blumberg and Letterie, 2008). As a result, credit cards have become a common form of new-business borrowing. With the recent contraction of credit markets, many new businesses will face difficulties in accessing traditional forms of credit, which likely will create greater demand for credit cards. Little is known, however, about the effect that credit card borrowing has on new firms.

Examination of Credit Card Debt on Small Business Survival

This study uses the longitudinal Kauffman Firm Survey to investigate whether, and to what degree, revolving credit card debt affects survival rates of new firms in their first three years of operation. Studies have analyzed the reasons new businesses fail (see, for instance, Cressy, 2006; Esteve-Perez and Manez-Castillejo, 2008; Shane, 2008); however, none have specifically examined the influence that credit card debt has on new businesses in their early years of development.

This report focuses on *small* businesses, which are the most common type of business opened in the United States (e.g., coffee shops, Web site developers, etc.). The KFS is especially useful because it captures young businesses, regardless of

1. Because borrowing terms (interest rates, fees, etc.) are similar between personal credit cards and business credit cards (Manning, 2000), this analysis combines the two so that the term "credit cards" encompasses both types.

2. The Kauffman Firm Survey data were collected in 2005 on businesses that started in 2004. So, it is possible that some businesses started and closed in 2004 that are not represented in these survival figures. The survival figures for businesses in these data, therefore, will likely be upward biased.

whether they are self-employed individuals or limited liability corporations, meaning the KFS captures employer and non-employer businesses (Reedy and Robb, 2009). For example, nearly 60 percent of the businesses in the baseline (2004) have zero employees, and 82 percent have two or fewer employees. Small businesses with few (or no) employees are the type of businesses most likely to accumulate credit card debt. A recent estimate of the average cost to start a new business from scratch is about $31,150 (in 2008 dollars), although we know this varies widely by industry (Shane, 2008). In the Kauffman Firm Survey data, median startup expenses for firms that started operations in 2004 were $20,182 (in 2008 dollars). From 2007 to 2008, about 92 percent (25 million) of small business loans in the United States were micro business loans (business loans of less than $100,000), most of which came in the form of business credit cards. Only 8.1 percent (2.2 million) of small business loans were between $100,000 and $1 million (SBA, 2009).

The frame for the KFS was the Dunn & Bradstreet database of new businesses started in 2004. Firms were screened to ensure that they started in 2004. The sample includes businesses that were created by a person (or group of people), or those purchased as a franchise. Therefore, the sample eliminates businesses already in existence, inherited businesses, and not-for-profits. Each business's original entrepreneur (primary owner) was surveyed using an online Web survey or a telephone survey. A total of 4,928 businesses were included in the baseline (2004) dataset (DesRoches and Robb, 2008). This study uses the KFS data from the baseline and first two follow-up surveys, which cover 2004 through 2006.

Benefits and Disadvantages of Credit Card Financing

United States pop culture is filled with many examples of creative entrepreneurs using credit cards to jumpstart their businesses. Spike Lee's first movie was funded by maxing out his credit cards, which resulted in launching his career as a director. The Blair Witch Project, a film that grossed more than $250 million, was funded almost exclusively with credit card debt totaling around $35,000 (Manning, 2000). It is not surprising that these types of business ventures would rely on credit cards.

Credit cards are appealing to small businesses for a number of reasons. First, they help small businesses manage their finances and streamline payments. Second, they are easier to get than traditional bank loans or government business grants; getting one does not require a business plan or months waiting for the loan to be approved. Third, they are useful for smoothing revenue streams—especially at the startup phase of operations. Fourth, they are accepted almost everywhere. So, a variety of supplies and even cash can be obtained with credit cards. Finally, credit cards are a somewhat anonymous funding source. Unlike other types of loans (those from family, friends, banks, etc.), credit card companies will never ask where their money went. They are mainly concerned with a credit card user's ability to make at least the minimum payment.

The main problem with credit cards is that they are an expensive way to finance a business. Interest rates on personal and business credit cards average around 15 percent and can be above 30 percent in extreme cases (Manning, 2000).

New Businesses that Stabilize Debt Are More Likely to Succeed

Table 1 shows the demographics of new businesses in the baseline data. About 58 percent of new firms relied on credit cards to finance operations in their first year of business. Nearly 33 percent of these businesses carried a balance on their credit cards through 2004. At the end of 2004, the average outstanding credit card balance among all small businesses was about $3,500. For businesses that had outstanding credit card debt, the average balance at the end of 2004 was about $11,000.

Table 1
Descriptive results for all new small businesses in baseline Kauffman Firm Survey, 2004

Variables	2004 (baseline)	N
Average revolving credit card debt balance	$3,559	4,928
Used credit card debt to start business	57.9	4,886
Firms with one owner	60.8	4,919
Firms with two owners	27.1	4,919
Firms with three owners	6.3	4,919
Firms with more than three owners	5.8	4,919
Number of employees		
0	58.8	4,823
1	14.4	4,823
2	8.6	4,823
≥3	18.2	
Median revenue from sales	$40,000	2,602
Previous new businesses started by primary owner	0.97	4,912
Age of primary owner	44.9	
Years of experience (in same area as new small business)	11.7	4,913
Gender (male)	68.5	4,919
Race of primary owner		
White	82.2	4,928
Black	9.1	4,928
Other	8.7	4,928
Education of primary owner		
No high school diploma	2.5	4,928
High school diploma	18.6	4,928
Some college	31.0	4,928
College degree	29.7	4,928
Post-college degree	17.9	4,928

Note: Sample weights applied

As shown in Table 2, in 2004 those businesses that closed had less credit card debt ($2,365) than businesses that survived ($3,638). This average increases 40 percent by 2005 for surviving firms and increases 190 percent for businesses that closed. However, by 2006, the one-year change in credit card debt balances for surviving firms was a marginal 1.8 percent gain; but for firms that closed, their average balance actually decreased by 18.5 percent. These findings suggest that credit card debt increases and then eventually stabilizes to a manageable level during many firms' first few years of operation, while firms with high-credit-card debt close and successful firms start paying off their debt.

Table 2
Descriptive results for new small business that survived and those that closed, 2004–2006

	2004	2005	2006
Average year-end credit card debt balance	$3,638 ($2,365)	$5,099 ($6,861)	$5,191 ($5,595)
Used credit card debt to start business	58.4 (50.9)	58.5 (61.2)	57.6 (59.0)
Median revenue from sales	$43,000 ($20,000)	$85,000 ($30,000)	$109,645 ($45,000)
Percentage of firms survived	93.9	93.1	91.5
Cumulative percentage of firms survived	93.9	86.9	78.5

Note: Businesses that closed in parenthesis. Sample weights applied.

Credit Card Debt Affects Likelihood of Survival

A multivariate regression model was developed and tested using the KFS data (not shown), which found that credit card debt reduces the likelihood that a new business will survive in the first three years of operation. The results, which were statistically significant, found that every $1,000 increase in credit card debt increases the probability a firm will close by 2.2 percent. No relationship was found, however, between using credit card debt to start a business and that business's survival or closure.

Many factors explain why new businesses succeed or not. The growth in credit card use among small businesses has raised the question of whether firms with credit card debt were less likely to survive during their beginning stages of development. This study shows that credit card debt does play a role in business closure in the first few years of operations. And, while it is not the only determinant of a business's stability, it appears to be an important factor in a firm's likelihood to survive.

REFERENCES

Berger, A. N., and G.F. Udell (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of Banking & Finance,* 22 (6), 613–673.

Blumberg, B. F., and W.A. Letterie (2008). Business starters and credit rationing. *Small Business Economics,* 30 (2), 187–200.

Cressy, R. (2006). Why do most firms die young? *Small Business Economics* 26 (2),103–116.

DesRoches, D., and A. Robb (2008). Kauffman Firm Survey (KFS)—Baseline/first/second follow-ups: Study Metadata documentation. SSRN. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1024312.

Estevez-Perez, S., and J. Manez-Castillejo (2008). The resource-based theory of the firm and firm survival. *Small Business Economics,* 30 (3), 231–249.

Kobe, K. (2007). The small business share of GDP, 1998–2004. SBA Office of Advocacy. http://www.sba.gov/advo/research/rs299tot.pdf.

Manning, R. D. (2000). *Credit card nation: The consequences of America's addiction to credit.* New York, N.Y.: Perseus Books Group.

Reedy, E. J., and A. Robb (February 2009). Comparisons between the Kauffman Firm Survey and other business data sources. SSRN. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1352601.

Shane, S. (2008). *The illusions of entrepreneurship: The costly myths that entrepreneurs, investors, and policy makers live by.* New Haven, Conn.: Yale University Press.

Small Business Administration. (May 2009). Small business and micro business lending in the United States, for data years 2007–2008. SBA Office of Advocacy. http://www.sba.gov/advo/research/sbl_08study.pdf.

© 2009 by the Ewing Marion Kauffman Foundation. All rights reserved.

KAUFFMAN
The Foundation of Entrepreneurship

4801 ROCKHILL ROAD
KANSAS CITY, MISSOURI 64110
816-932-1000
www.kauffman.org

0809PRINTERQTY